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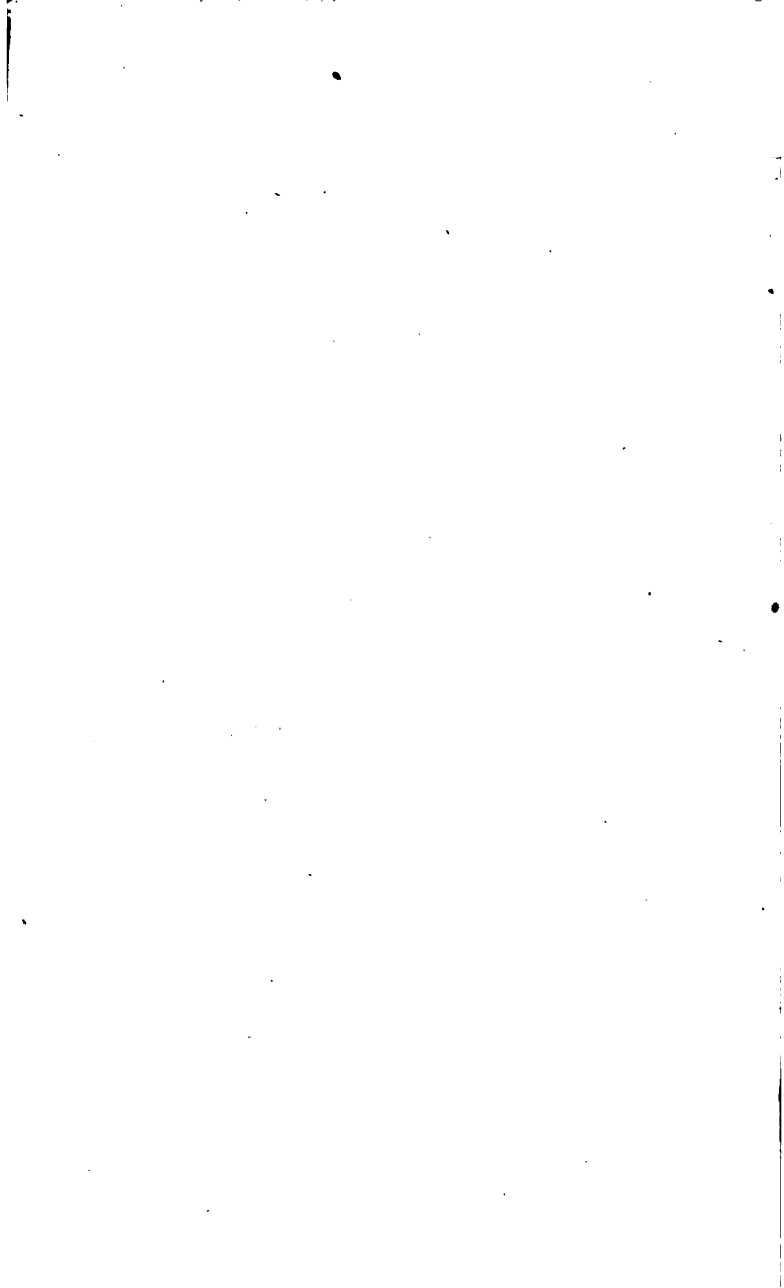
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HINTS TO MOTHERS.

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HINTS TO MOTHERS,
FOR THE
MANAGEMENT OF HEALTH
DURING THE PERIOD OF PREGNANCY,
AND IN THE
LYING-IN ROOM;
WITH AN
EXPOSURE OF POPULAR ERRORS IN CONNEXION WITH
THOSE SUBJECTS, ETC.
AND
HINTS UPON NURSING.

BY
THOMAS BULL, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS;
PHYSICIAN-ACCOUCHEUR TO THE FINSBURY MIDWIFERY INSTITUTION,
AND FORMERLY LECTURER ON MIDWIFERY, AND ON THE DISEASES
OF WOMEN AND CHILDREN.

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1847.



PREFACE

TO

THE FIRST EDITION.

IN the minds of married women, and especially in young females, those feelings of delicacy naturally and commendably exist which prevent a full disclosure of their circumstances, when they find it necessary to consult their medical advisers. To meet this difficulty, as well as to counteract the ill-advised suggestions of ignorant persons during the period of confinement — are the chief objects of the following pages.

While it is believed that much of the information contained in this volume is highly important to the comfort and even to the well-doing of the married female, much of it is, at the same time, of a character upon which she cannot easily obtain

satisfaction. She will find no difficulty in *reading* information, for which she would find it insuperably difficult *to ask*.

There are many little circumstances, too, in which it does not occur to her to seek for advice, of the nature and result of which she ought not to be ignorant. Young married women are especially liable to many needless, yet harassing fears, which it has been the anxious object of the Author to remove, by showing that they have no foundation in truth. It has often been necessary to be minute; but *that*, it is imagined, will not be regarded as an imperfection.

The Author's connection for some years past with a large and important Midwifery Institution has led him to direct especial attention to the important subject upon which he has ventured to appear before the public; and he must leave his work with them, in the hope that he has not written altogether in vain.

Finsbury Square.

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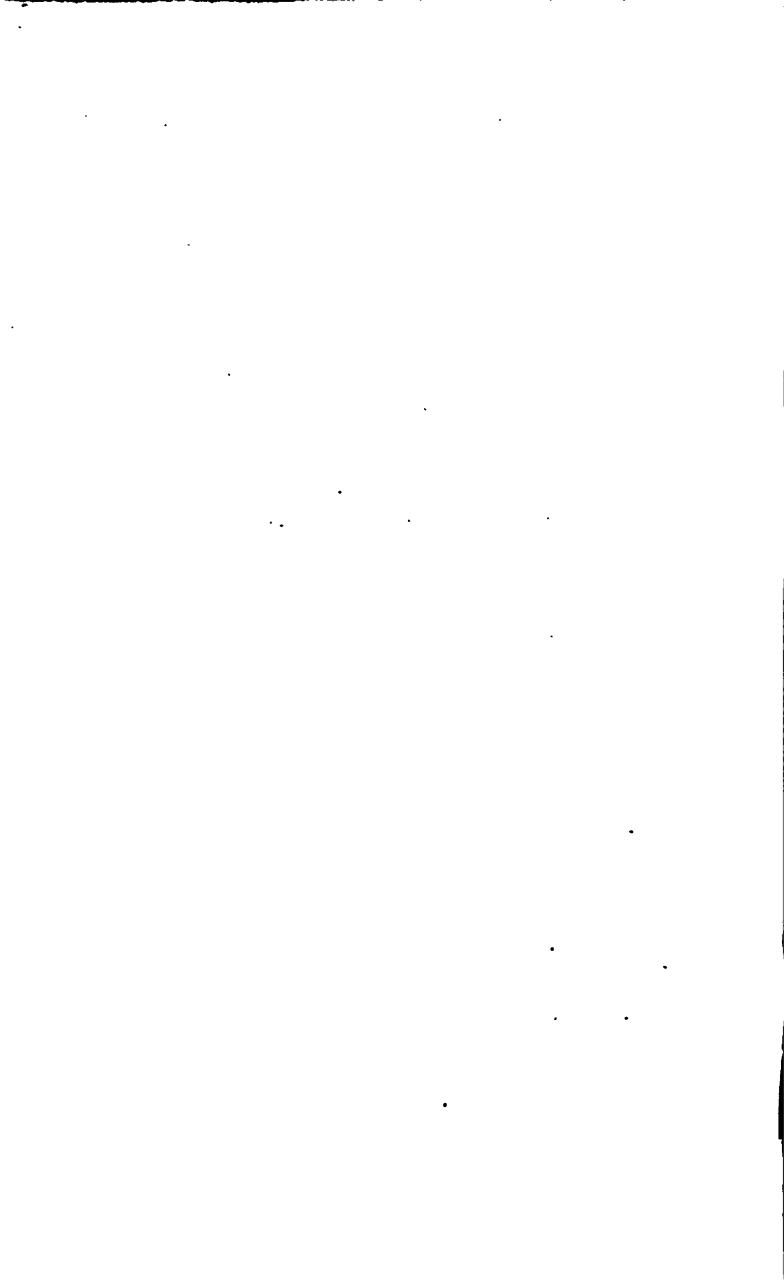
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HINTS TO MOTHERS.

CHAPTER I.

OF THE MANAGEMENT OF HEALTH DURING
PREGNANCY, AND OF POPULAR ERRORS UPON
THIS SUBJECT.

EVERY young married woman in the prospect of becoming a mother is, naturally, deeply interested at her situation. It is new to her, and she feels it to be important. She is all anxiety to know whether it will affect her own health? if there is any plan she ought to pursue to preserve it? and whether a strict adherence to such a plan will tend to secure a vigorous constitution to her expected offspring? Suggestions similar to these do, I am sure, arise in the minds of most women when they become pregnant for the first time, and are always felt to be of no small importance by all those who desire faithfully to discharge the duties and obligations of the wife and mother.

Unfortunately however, in too many instances, these reflections lead to no useful result. Doubtless, in some, from an ignorance of the importance of the subject; but I suspect with the majority of newly married women from an unwillingness *to ask* for the necessary information, an inquiry from which their delicacy naturally recoils. From whatever cause this may proceed, there can be no doubt of the fact, that hitherto there has been a lamentable disregard to the principles of self-management, not only during the period of pregnancy, but during that of suckling also; and I am sure the daily observation of all professional men, who have opportunities of forming an opinion upon the matter, must confirm the truth of this statement. I say lamentable, because when we recollect the importance of the interests involved, and the melancholy results often accruing from such neglect, it is surely most desirable that the attentive consideration of those whose physical and moral happiness are so deeply concerned should be drawn to this subject.

When pregnancy occurs in a woman of sound constitution, who observes habitually the ordinary laws of health, and regards also those which are demanded by the new condition in which she is placed, it is undoubtedly true, that in general her health will not be much affected. But then (and this is the important point to notice) this presumes a previous careful and constant ob-

servance of those laws by which the health is ordinarily maintained, and which are now required to be more than ever vigilantly and perseveringly followed out; for no one can be indifferent to these laws, or violate them during this period, whatever they may do at another time, without paying the cost in suffering, and occasionally in danger.

This it would be very easy to show. One of the most serious and most frequent consequences to the mother resulting from this neglect is miscarriage. And although this accident may have little in it to excite apprehension at the time, it tends, perhaps, more than any circumstance that can occur, (if frequently repeated,) to undermine the constitution and to destroy the future health. Then the pain, duration, and even safety of labour are more or less influenced by the previous management of the health. And, all other things being equal, that labour will be least painful, briefest, and most safe, where the right principles of management have been previously most perfectly carried out. The same remark applies with equal force to the symptoms and well-doing of the lying-in-month, and to the period of suckling — facts which every day's observation confirms.

And here I would just observe that pregnancy, labour, and suckling, should ever be regarded as most intimately and closely connected with one another. Hitherto labour has been the absorbing

point of anxiety with the pregnant woman ; and has been too much considered by her as a separate and distinct act of the constitution, but slightly connected with any that precedes or follows it. I have pointed out in the preceding remarks how important an influence the state of health during pregnancy exercises over labour ; and, were it necessary, it were easy to prove how the condition of health, during both these periods, has a most important influence on the capacity for suckling. Pregnancy, labour, and suckling, therefore, should be looked upon as one process ; conception being the commencement, weaning the close, and labour the connecting link. Thus, a woman may consider herself a mother, not only from the birth of her child, but even from the moment of its conception. From that important epoch her duties commence, — duties amongst the most sacred and dignified which humanity is called upon to perform.

But if this careful management be important for the mother's health, it is equally so for the child's. Physical education commences with the pregnancy of the mother. There is so remarkable and intimate a connection between the child and its parent, that it is difficult to say whether any important change can take place in the physical or mental condition of the mother, which is not liable to produce some corresponding change upon the condition of the child ; and even supposing

some physiologists have carried the theory of this connection too far, yet the mere possibility of such important consequences as are involved in its being true, ought to be quite sufficient motive with every rational woman for the extremest discretion. It is certain, however, that the future health and constitution of the offspring are greatly, though it may be to an indefinite extent, dependent upon the conduct of the mother. If she carefully adopts the means of management to which allusion has been made, experience shows that she takes the most likely steps to ensure a healthy progeny. If, however, she is careless and negligent upon this head, and also fails in attention to the measures which her new condition demands,—perhaps indulging in that course which, under ordinary circumstances, would be directly opposed to the maintainance of health; her child will inevitably be variously and injuriously affected, these causes operating through her system upon that of the child. 'Tis true, notwithstanding the violation of all physical laws, and even with women the subjects of incurable disease, children, apparently the finest and most healthy, are sometimes born; but, after the lapse of a few months, or at most of a few years, disease shows itself in very many of these children, the seeds of which, it is evident enough, were deeply sown in their system before birth. “It is observed,” says Eberle, “that infants, well nourished and apparently in good

health, are occasionally born of mothers who laboured under severe and irremediable disease during the whole period of gestation. This is doubtless the case in many instances; but it should be observed that, although the new-born infant may appear to enjoy a good state of health, it frequently happens that the disease or predisposition contracted during gestation remains latent or dormant for months or even years after birth before it is developed; and thus, there may be the appearance of a sound and healthful state of the constitution during infancy, although the seeds of disease may be deeply deposited in the system." These facts only tend to put the case in a still stronger and more forcible light, showing how close is the connection between the health of the unborn child and the health of the mother; and that the more perfectly and fully the latter is sustained, the more vigorous and robust will be the system of the former.

From these statements then it is very clear that it is a most important object for all to attend to the health during pregnancy, not only for the future well-doing of the parent, but equally for the welfare of the expected offspring. It will not, however, be expected that I should here enter upon an exposition of those laws by which the health ought to be regulated by us all, and at all times. It is justly presumed that the reader has a practical knowledge of their value. If, how-

ever, she has hitherto been inattentive to this matter, I would strongly advise her to read, study, and take as her guide the admirable and interesting work of Dr. Combe's, entitled "Principles of Physiology applied to the Preservation of Health." All that will be attempted in this chapter will be to give those directions which more immediately relate to the condition of pregnancy itself.

There is another point, having an important bearing upon this inquiry, and which, as it is closely connected with its consideration, must necessarily be noticed with it. I refer to popular errors on the subject of pregnancy. During this period the happiness of a nervous and anxious woman is often completely destroyed by the errors which still prevail. And (as would be anticipated from what has already been said) the effect of these prejudices on the constitution of the mother will be found more or less to impair the health and future vigour of her offspring. It may be said, the day is past when prejudices of this kind can operate, that the tales and fears of former times exist no longer, and that the well-educated woman regards neither the counsels of the ignorant nor the gloomy forebodings and prophecies of popular credulity. In this I cannot concur. It may be admitted, indeed, that when truth is properly presented to such minds, it will be at once received; yet, as a question like this has never

been plainly discussed with a view to popular perusal, I find, even now, the sensible and otherwise strong-minded woman more or less under the influence of notions as absurd in themselves as they are mischievous in their tendency. Every medical man much engaged in the lying-in room can attest the truth of this statement. I shall briefly notice a few of those errors which are most prevalent, and endeavour to convince the nervous and timid woman that, on their account at least, pregnancy is not to be looked upon as a period of privation and suffering, but as it truly is, a state which, while it demands much care and prudence, is perfectly compatible with health and enjoyment.

Before concluding these few prefatory remarks, I am desirous of adding a word or two upon the serious and fatal effect, which, I believe, marriage frequently exercises upon the young woman of *delicate health*. It is true, and experience justifies the statement, that this event, now and then, seems to produce a most beneficial and salutary influence upon the constitution of such an individual; it becomes invigorated by it, and, pregnancy occurring, established. In the majority of cases, however, the result is far otherwise. And how many instances, if we look around, may we number of young female friends, who, after a first or second childbearing, have sunk rapidly into the grave. Now, how is this? In what consists the difference

in the two cases ? I believe it to be just this. That where health becomes improved by marriage, the frame, although delicate, is free from disease, or from a predisposition to it—the organs of the body are sound ; but in the other case (and this is the example of the larger class), a consumptive tendency, more or less strong, exists, and marriage in such depresses the vital powers, permanently weakens the frame, and thus developes, more or less rapidly, this most fearful and most destructive malady ; and life is thus cut short, which, had not marriage taken place, might, by a watchful and vigilant care, have been prolonged many years. It is most important that parents should be fully aware of these facts — of the fatal influence of the married life on such a state of constitution — that they may do all they can to dissuade those who are so circumstanced from an alliance, which can be productive only of misery. I know it will be observed, that cases occur in which child-bearing would seem to have a decidedly contrary effect, and to arrest the progress of consumption ; that a woman, having decided consumptive symptoms, shall fall pregnant, and such symptoms shall directly abate, and by and by seem almost to disappear ; and, year after year, she shall go on bearing children, and, so long as she does so, her original disorder shall be kept in abeyance. Immediately, however, this condition ceases, the consumptive symptoms again appear, and perhaps

quickly terminate life. It is very true that striking instances of this kind occur now and then, but extensive observation will prove these to be exceptions to the general rule.

I may add, that where children are known to inherit a predisposition to consumption, although they may be in the enjoyment of apparent good health, they should be prevented, if possible, from allying themselves with such as are in the same predicament; for when both parents are strumous, their children will, in all probability, be doubly so. How much misery and suffering is thus inflicted on the offspring, which, humanly speaking, might be prevented by a prudent avoidance of such ill-assorted marriages! The practical physician, if he feels rightly, feels these things deeply, and gladly embraces every opportunity of throwing out a hint that may tend, however remotely, to lessen this evil. To no physician is the present generation so indebted for enlightened views upon this subject, as to Sir James Clark, in his admirable work on *Pulmonary Consumption*.

SECT. I. — DIET.

ALMOST the first error committed during pregnancy has reference to the diet. It is presumed by some, that during this condition a larger proportion of food is necessary than at any other time, the

support and nourishment of the child demanding the extra supply. This is a great mistake, and, when acted upon, injurious to the health of both mother and offspring. Its origin, no doubt, is simply this:—if a woman ordinarily only takes food sufficient to nourish her own system, surely, it is said, when she is pregnant, the extra demand made for giving support to another must require an extra supply of nourishment. This conclusion, though it appears at first sight reasonable enough, will, upon examination, be found to be fallacious. It is sufficient for me to remark, that we habitually take more food than is strictly required for the demands of the body; we therefore daily make more blood than is really wanted for its support: and this superfluity is amply sufficient for the nourishment of the child—a very small quantity being requisite; the mother does not feel the demand to be oppressive, and a freer indulgence of food is not necessary to provide it.

Nature herself corroborates this opinion; indeed she solicits a reduction in the quantity of aliment, rather than an increase; for almost the very first evidence of pregnancy is the morning sickness, which would seem to declare that the system requires reduction rather than the contrary, or why should this subduing process be instituted? The consequences, too, which inevitably follow the free indulgence of a capricious, and what will afterwards grow into a voracious appetite, de-

cidedly favour this opinion ; for the severest and most trying cases of indigestion are by these means induced, the general health of the woman disturbed and more or less impaired, and through it the growth and vigour of the child, so that the means intended for its good become a source of direct injury. A stronger proof of the fallacy of this error is not necessary. A female, then, should guard against this opinion's influencing her conduct during pregnancy.

Dietetic rules for the early months.—If the general health was good before pregnancy took place, it will not be interfered with in the majority of persons by this occurrence. Here it is not advisable that any essential difference should be made in the diet ; it is not called for, and either way would be attended with disadvantage. Observe only moderation and simplicity in your diet, and you may continue to take during your present condition, the same kind of nourishment to which you were accustomed, and by which your health was maintained, previous to your becoming pregnant.

If the general health before pregnancy was delicate and feeble, and as a consequence of this state becomes invigorated, and the powers of digestion increase, then a larger supply of nourishment is demanded. It may be taken in such a case without fear ; for instead of being injurious, it will be useful. Only be cautious in the selec-

tion of the kind of food, and that certain limits in quantity are not exceeded, or even here disorder will quickly be produced.

On the other hand, if the stomach, from sympathy with the state of pregnancy, be rendered irritable, and the digestive power impaired, and the appetite as a consequence variable and capricious, a careful choice of the articles of diet is especially important. And not only must simplicity be observed in the kind of food selected, but great moderation in the quantity taken. The stomach must not have more put into it than it has power to digest. Rigidly to follow out these directions, however, and to resist the cravings of a disordered appetite, will demand all the self-control the patient possesses. But if she give her appetite the rein, and feed its waywardness, she will find such indulgence productive of the most serious consequences. Habitual indigestion is thus frequently occasioned, and the health of the mother so deteriorated, as to give rise to a scrofulous constitution in the offspring. Sir James Clark has clearly shown this to be the case; a fact which cannot be too extensively known, since the generally received notion is, that it is only a parent actually suffering under a scrofulous habit of body who can impart it to her offspring. Let the diet then be light in kind, moderate in quantity, and not stimulant in its effects.

Rules for the latter months.—During the whole

of this period care must be redoubled that too large a quantity of food, or that which is unwholesome in quality, is not taken. This would not only very probably bring on vomiting, heart-burn, and constipation, and contribute, from the accumulation of impurities in the lower bowel, to the difficulties of labour, but expose the individual to consequences of a very serious kind after her delivery. If it were necessary, I could confirm this point by one or two striking illustrations, but I think it enough to state the fact. It must be remembered that the female is less able to take active exercise at this period; as a consequence, she requires a less amount of food, and that which is more simple in quality.

Indeed, it sometimes happens, that although the health and appetite have been excellent up to this time, a great dislike to animal food of every kind, and under every form, is now experienced. And if such an individual be persuaded to eat it incautiously, she is sensible of much inconvenience. She prefers vegetables, fruit, and such articles of light digestion, which she finds may be taken without prejudice. Under these circumstances let her adopt this diet, it is best for her. At the same time I would advise her occasionally, but with due care, to take a little fresh meat or game.

Stimulants of all kinds at this period are generally hurtful. Indeed, from the increased activity

in the system during the whole period of gestation, it will be frequently necessary to diminish, and even discontinue altogether, the stimulants in common use. Here I cannot refrain from throwing out a caution. Do not at any period of pregnancy be persuaded to endeavour to allay sickness of stomach, however distressing, or depression of spirits, however painful to bear, by the use of stimulants, or even by medicine, if it be of a stimulating quality, unless professionally prescribed. I have good and weighty reasons for throwing out this caution, believing as I do, that even the stimulating bitters, so frequently had recourse to during pregnancy, produce injury to the constitution of the child ; and fearing as I always do, lest their exhibition should lead to the promotion of habits equally injurious, if not eventually fatal, to the physical health and moral happiness of the parent. This practice has created the *solitary* drunkard. A painful and most distressing case of this kind has been under my immediate notice for two years past, and now death, solely from the effects of inebriety commenced under circumstances similar to those just referred to, has within the last six months prematurely terminated the life of a wife and mother. Eberle very justly remarks, " With regard to vinous or alcoholic drinks, it is scarcely possible to reprobate their habitual use in terms of censure sufficiently strong. Excepting as mere medicinal agents,

regularly prescribed, they ought to be wholly and most rigidly avoided by pregnant females. The temptation, as Dr. Dewees very truly observes, to taking small portions of cordial or brandy, in the early months of gestation, is often very strong. The annoying sensations frequently experienced in the stomach, and the general uncomfortable feelings connected with them, are usually allayed or moderated for a time by the use of these potent stimuli. The unpleasant feelings, however, return, and recourse is again had to the assuaging but insidious stimulus; and thus it is taken again and again, in still increasing portions, until the deplorable habit of solitary dram-drinking is formed." I believe the two grand causes why so many women among the lower classes give birth to unhealthy and puny children, whose life, short as it is, is usually one of uninterrupted suffering, are insufficient food and spirit-drinking; and, moreover, that the stimulant is the more injurious cause of the two. Dr. Eberle moreover confirms a result of not unfrequent occurrence, and gives a striking illustration of its truth, that the frequent or habitual use of spirituous drinks is particularly apt to favour the occurrence of abortion. "In the course of my practice," he says, "I have met with some very striking exemplifications of this fact. A lady, who after the birth of her first child became deeply imbued with this lamentable vice, aborted four times in succession. She then,

by the earnest and unremitting exertions of her friends, seconded by her own efforts, succeeded in throwing off the habit of intemperance, and in the course of the following ten years gave birth to four children. These children, however, were remarkably feeble and sickly from their birth, and one only out of the four is now living—about six years of age, and manifestly of a very delicate and infirm constitution.”

I am sorry in a work like this to have felt it a duty to dwell so long upon this painful subject; and I have only further to observe, that those women invariably do best (all other things being equal), who pay a due regard to the regulations here laid down. They suffer much less during pregnancy;—they usually suffer less during labour;—and, after delivery, are less liable to those untoward symptoms, which are the almost necessary result of a total disregard of all dietetic rules.

SECT. II.—LONGINGS.

IN reference to the *longings* of pregnant women for extraordinary articles of food, and on the supposed importance of gratifying them, it may be useful to make a few remarks. These cases, though by no means so common in the present day as formerly, occasionally fall under the notice of medical men. They are doubtless, in many in-

stances, the mere wilful fancies of the individual, and nothing more; in other cases, however, they are the result of actual disease, and disease, too, rather of the brain than of the stomach, and they demand careful and prudent management. For although, as I have elsewhere stated, an ungratified wish cannot impress an image of the thing longed for upon the child's body, still there is abundant evidence to prove that the indulgence by the mother in luxurious and unwholesome articles of diet not only injures her health, but seriously interferes with the growth and vigour of her offspring.

Dr. Dewees relates a remarkable instance of the injurious consequences to *the mother* of such indulgence. He says, " We formerly attended a lady with several children, who was in the constant habit of eating chalk during her whole time of pregnancy: she used it in such excessive quantities as to render the bowels almost useless. We have known her many times not to have an evacuation for ten or twelve days together, and then only procured by enemata, and the stools were literally nothing but chalk. Her calculation, we well remember, was *three half pecks* for each pregnancy. She became as white nearly as the substance itself, and it eventually destroyed her, by deranging her stomach so much that it would retain nothing whatever upon it." *

* Compendium of Midwifery, p. 113.

Again, Dr. Merriman gives the following striking example of the fatal effects of such indulgence upon *the child* :—" A young woman, married to a gingerbread maker, took a fancy, during her first pregnancy, to chew ginger. The quantity of this spice which she thus consumed, was estimated at several pounds. She went her full time, and had a favourable labour ; but the child was small and meagre ; its skin was discoloured and rough, much resembling the furfuraceous desquamation that takes place after scarlatina. The child continued in an ill state of health for several weeks, and then died. She had several children afterwards, all healthy and vigorous. The inclination for ginger only prevailed with her first infant."*

These cases, then, require medical superintendence : but the treatment will be of little avail, unless the views and wishes of the medical attendant are seconded by the self-control of the patient, aided by the vigorous efforts of the friends of the party. Unfortunately the individuals most liable to be thus affected are those who are constitutionally nervous, irritable, and delicate ; who have always been accustomed to have their wishes gratified, and who all their lives have had little else to think about—but themselves. Hence the cure is rendered the more difficult. These capricious appetites and fancies, however, must be

* Synopsis of Difficult Labour, p. 32.

firmly resisted; and far easier of accomplishment will this be if vigorously met when they first manifest themselves, for indulgence only increases desire, and every renewal of the gratification only aggravates the disease. Where they have been of long standing, the powers of the stomach will necessarily have become much weakened, and a most careful attention to diet will be demanded: the mildest and most easily digested food alone ought to be taken. Fresh air and exercise should be daily obtained, as well as all other measures resorted to, which contribute to the promotion of the general health; but one of the principal points requiring the attention of the friends, is to secure the healthful employment of the mind of the individual.

SECT. III.—THE REGULATION OF THE BOWELS.

BEFORE leaving this part of the present subject, it will be useful to make a few remarks upon the proper regulation of the bowels. However regular their action prior to pregnancy, they will, in almost every case, be disposed to be costive after it has taken place. In the early months, this is supposed to arise from the increased activity going on in the womb. In the latter months, it doubtless proceeds in a great measure from the inability of the patient to take sufficient exercise; and in

some cases also from the pressure of the now enlarged and expanded womb on the bowels themselves.

The regular daily action of the bowels throughout pregnancy is of great importance. If they become positively constipated in the early months, there is great risk of miscarriage. If they become much loaded in the latter weeks, and the individual falls into labour with them in this condition, her labour will be protracted, its suffering and inconvenience much increased, and there will be a great liability of the after symptoms assuming an unfavourable aspect.

The best means of regulating them are, doubtless, those which are most natural. These include a proper attention to diet; regular and sufficient exercise; bathing, the shower-bath, or daily ablution; early rising (the indulgence in the habit of lying in bed always predisposing to constipation); and great regularity in daily soliciting their relief, and at that time of the day when it would seem they are most disposed to act, viz. after breakfast. But, notwithstanding a sedulous observance of these principles of health, they may fail to accomplish the object. Under these circumstances remedial measures must be adopted; for a few hints about which, the reader is referred to the section on costiveness in the chapter on the diseases of pregnancy. As a good general rule remember, however, that the more *gentle* the

means employed, the more eligible they are, provided they answer the intention.

SECT. IV. — EXERCISE.

THE error still prevails to some extent, that exercise at the commencement of pregnancy is prejudicial, and should be refrained from almost entirely; but that at the conclusion of gestation, its employment is beneficial.

There is no doubt that, in some cases, in the early months great and continued care in this respect is not only useful, but absolutely necessary, in order to prevent miscarriage. For example, where a predisposition exists to abortion at any particular period, it is impossible to prevent its occurrence, unless the utmost degree of care is taken to avoid exciting or fatiguing exercise about the time when this accident is, in such cases, apt to take place; in truth, the most perfect rest of body, for a longer or shorter period, is imperatively called for. But that women, as a general rule, should be encouraged to live more indolently, (exercise being thought improper, unless towards the conclusion of pregnancy, when it is supposed to procure a more favourable delivery,) is an error exceedingly injurious. The fact is, a directly contrary method of proceeding is the most eligible and proper: exercise in the early months, with a

gradual approach to a state of repose as the period of confinement approaches.

During the first six or seven months frequent and gentle exercise in the open air, and domestic occupation which requires moderate exertion, are very desirable; both have a beneficial influence on the health of the mother, and, through her, upon the child. The former invigorates health, and the latter contributes by its regular return and succession of duties to employ her time, and thus insures that ease and serenity of mind so essential to her happiness. Crowded assemblies, however, of all kinds, public spectacles, and large parties — in short, every thing calculated to rouse strong feelings, to depress the mind, or excite the passions, ought to be sedulously avoided. From a neglect of this precaution, miscarriage is a very frequent occurrence among young married women of the present day; more particularly when they become pregnant for the first time; this accident arising not from any unavoidable and predisposing cause existing in the constitution, but simply from the mode of life indulged in. The visiting, the large dinner parties, immoderate dancing, late hours, and the like, so common in modern society, and often pursued night after night, by exciting and exhausting the system, produce this accident as the inevitable result. Scarcely a month passes in which a well-employed medical man does not meet with some instance in which abortion is

threatened, or actually takes place, from this cause alone.

I have again and again, too, witnessed the impolicy of taking a long and rapid tour immediately after marriage. The excitement and fatigue to which a delicate young woman is thus exposed, when a state of quietude is really most desirable, is frequently followed, if not by miscarriage, by a derangement of health, from which it sometimes takes weeks to recover. It has occurred to my knowledge more than once, that the young bride has been taken seriously ill during the journey itself, in some remote district, far away from all medical aid. The mental misery this occasioned to the young husband was, as may be supposed, most distressing, irrespective of the serious results which might have followed to the patient. Only imagine for a moment a tour made on the Continent, pregnancy occurring, and, as the almost inevitable result of the fatigue of climbing mountains, and the excitement usually attending continental travelling, miscarriage taking place in some *auberge* by the way side, where no medical aid can be obtained, nor comfort either ! The evil in such circumstances is heightened tenfold ; and yet this case *has* happened, and will doubtless happen again. Considerable bodily exertion at this time, when there always exists a more or less susceptible state of the system, ought to be carefully avoided. For, besides miscarriage, many a case of very

painful and irritable condition of the womb, than which there is no affection more obstinate and difficult to cure, has originated in a journey directly after marriage, in a rough carriage over the paved roads of the Continent.

Were young women fully alive to the sad results arising from all this, I am sure a very different course would be followed. The fact, however, is, that miscarriage itself is much too lightly estimated. It is looked upon at the time of its first occurrence as comparatively harmless; and it is not until it has happened repeatedly, that the individual is sensible of the serious evils arising from it. Do not let the circumstance, however, of miscarriage producing no immediate apparent effect, blind any one to the magnitude of the ultimate result; but let the young wife ever remember, that repeated miscarriages, however imperceptibly they may affect the constitution, do but too frequently ultimately ruin it. I may safely affirm that, from a want of the most ordinary care and prudence in the first years of married life, thousands have had the fairest promises of health and happiness blasted by the ill effects of this accident alone. The foundation of chronic disorders of a very painful kind, and of incurable disease of the womb itself, which manifest themselves in after-life, is often laid in this way. Surely, then, after reading these remarks it will not be thought too great a sacrifice to give up,

Some women err in the same way, but have not the same apology to offer for their folly. I refer to those women who allow fashion to get the better of their judgment, and encase themselves in the tightly laced corset to preserve their figure.

The effects of this practice are, however, most serious. For months together the chest and abdomen are subjected to constant and forcible compression, and that during a period when nature is daily requiring more and more room for the gradual development of the child; and thus the healthy performance of the various functions of the organs of the mother's system is interrupted, and the regular and healthy nourishment of the infant is seriously interfered with. Hence the functional disorders with which such women are so grievously distressed during pregnancy, and hence also the reason why they give birth to such delicate, emaciated, and puny children. Not unfrequently this evil so deranges the general system as to cause miscarriage, at an earlier or later period. Eberle upon this subject says: —

“By this unnatural practice the circulation of the blood throughout the abdomen is impeded, — a circumstance which, together with the mechanical compression of the abdominal organs, is peculiarly calculated to give rise to functional disorder of the stomach and liver, as well as to hæmorrhoids, uterine hæmorrhage and abortion. The regular nourishment of the fœtus, also, is generally impeded

in this way, — a fact which is frequently verified in the remarkably delicate and emaciated condition of infants born of mothers who have practised this fashionable folly during gestation. It may be observed, that since the custom of wearing tightly laced corsets has become general among females, certain forms of uterine disease are much more frequent than they were sixteen or eighteen years ago." Tight lacing has also a prejudicial effect upon the labour. Struve confirms this remark: — "The parts which have suffered from constant pressure, become debilitated and incapable of co-operating in the important function of parturition, so that labour is rendered more tedious and painful." And again it has an injurious effect upon the breast. The glandular structure is sometimes so injured, and the nipple so compressed, as to render suckling a very difficult matter, or altogether impracticable.

Now, none of these evils need arise, and the young wife may, by using the proper precautions, avoid either injury to herself or to her expected offspring. The measures are simple enough. As in all probability she has been accustomed from her girlhood to wear corsets, it would not be wise, nor is it necessary, in order to obtain the object sought, to throw them aside; but they must be altered. They must have lacings over each bosom, so that they may be loosened or otherwise at pleasure. This is particularly necessary when

pregnancy occurs for the first time, as in such a case the breasts generally increase much in size, and sometimes with rapidity. Then they must have lacings on each side at the lower part for the same purpose; and as gestation advances, the unyielding steel blades, so commonly used, should be removed, and thin whalebone substituted. With such an arrangement the corsets can be let out from time to time, and adjusted to the gradual and increasing size of the individual, always remembering that what is required is the avoidance of pressure and the giving of due support. "The Romans were so well aware of the mischief caused by compression of the waist during gestation, that they enacted a positive law against it; and Lycurgus, with the same view, is said to have ordained a law compelling pregnant women to wear very wide and loose clothing."

When an individual has had many children, or but few in quick succession, as she increases in size after the fourth month, she will generally be greatly encumbered by it. So much so, sometimes, as to be really unable to move about with any comfort. This arises from the abdominal muscles having lost their tone, or power of supporting the enlarged and enlarging womb. It is to be remedied by wearing, during the day, a belt which will be found described in the chapter on the Diseases of Pregnancy.* If a belt cannot be

* See page 110.

obtained, and it be cold weather, a broad flannel roller, seven or eight yards in length rolled around the abdomen with sufficient firmness to give support, is a very good substitute.

The feet, as at all other times, so especially during pregnancy, should be well protected. This is sadly neglected by women generally.

SECT. VI. — BATHING.

A FEMALE will naturally ask, "Now that I am pregnant, may I continue bathing as heretofore?" Most certainly: it is more than ever desirable. It will tend not only to invigorate your health, but greatly promote your comfort in every respect.

If accustomed to the shower bath, continue its use; but never commence this kind of bath for the first time, being pregnant; the shock to the nervous system would be too great, and miscarriage might follow.

If of a vigorous and healthy constitution, and living on the coast, and accustomed to sea-bathing, continue it for the early months; but never commence a course of sea-bathing, either at the onset of pregnancy or during its progress, for the reason just given.

Sponging, upon first rising in the morning, with cold water in summer and autumn, and with

tepid water in winter, strongly impregnated with bay salt, is, perhaps, more generally applicable in pregnancy than any other form of ablution. It may be continued with great safety and advantage throughout the whole period. It may be commenced, too, if not employed before, even during the pregnant state, provided tepid water is used at first, gradually reducing the temperature until it is quite cold.

The very delicate and nervous woman, however, will find most benefit from the tepid bath (85° to 92°) twice a-week. It will relieve the nervous excitability, so liable to be aggravated in such individuals during pregnancy, and whilst it quiets and calms the system will also invigorate it.

Some one form of bathing, then, should be used by all, the condition of pregnancy rather increasing the necessity for it than otherwise; and every one who does not habitually employ it, neglects a hygienic agent of great value.

SECT. VII. — THE BREASTS AND NIPPLES.

As I have observed in a previous section, all compression of the breasts and nipples by the corsets during pregnancy, more particularly during its latter period, must be carefully guarded against. When this pressure exists in any great degree, the glandular structure of the breast is often per-

manently injured, and the nipples by the continual pressure so forced inwards and buried in the substance of the breast, that the function of lactation is greatly interfered with, and suckling sometimes rendered altogether impracticable.

Besides attentively regarding this precaution, however, every woman, especially in a first pregnancy, ought during the six weeks prior to her confinement *to prepare* the nipples for nursing. The skin covering them is generally so thin and sensitive, that the child's lips and tongue in the act of sucking soon make them tender and excoriated; and if this sensibility is not diminished, and the delicate skin rendered thicker and more callous before labour comes on, nursing will in many cases be necessarily given up very soon after.

The plan to be adopted is simple enough. All pressure upon the nipple and bosom being most carefully avoided, flannels or any thick covering that is ordinarily worn immediately over the nipples, must be laid aside. Then daily, upon the patient's rising and going to rest, each nipple must be washed with tepid water, or what is better, either with green tea, or the infusion of oak or pomegranate bark; and having been carefully dried, must be exposed to the air for eight or ten minutes, and rubbed gently during this time with a piece of soft flannel.

If the skin of the nipples is very delicate and sensitive, the above measures will be found hardly

sufficient to effect the object. In this case, either of the following lotions may be substituted: — A drachm of laudanum, two drachms of the tincture of myrrh, and two ounces of distilled water; mix: — or, thirty grains of white vitriol to eight ounces of rose-water; mix.

These means must be regularly and perseveringly employed up to the day of confinement, and will generally accomplish the object desired — the prevention of sore nipples.

In some persons the nipples are naturally very small, short, and consequently sunken in. In these cases, besides the means pointed out for hardening the delicate and sensitive skin covering them, they should be drawn out. A glass instrument, made somewhat in the shape of a tobacco-pipe, invented and ordinarily used for drawing the milk from an over-distended breast, may be employed for this purpose, or a breast-pump. On the Continent recourse is very much had to the application of a young, but sufficiently strong puppy: certainly an efficient mode, although not one that would be generally acceptable. Whatever mode, however, is adopted, it must be commenced early, and must be repeated daily until the nipples are considered sufficiently prominent to allow an infant's mouth easily to grasp them.

SECT. VIII. — BLOOD-LETTING.

MANY persons are impressed with the idea that the condition of pregnancy demands (at some period) the loss of blood, that it is necessary for the preservation of the mother's health, and that it exerts a favourable influence upon the child. This idea prevails more particularly among the lower class, and many of them as regularly as they become pregnant (after the second or third month) go to a chemist with the request to be bled.

This remedy, however, ought never to be resorted to unless manifest indications exist for its employment; and as females cannot be competent judges themselves of the presence or absence of such indications, the advice of the medical attendant ought always to be procured before recourse is had to this measure. So far from pregnancy demanding it as a necessary consequence, it is often positively injurious; for I have known several delicate and weakly women, who, by the advice of their friends, regularly submitting to be bled, as regularly have miscarried, and who, on again becoming pregnant, warned of the mischief resulting from such practice, have avoided it, and become the mothers of healthy children.

That bleeding is sometimes useful, and even

loudly called for, there can be no question; but such indiscriminate use of it, and solely because pregnancy has taken place, is an error productive of manifest injury. And it is a prejudice which is perhaps more seriously mischievous to the child than the mother; for, if it does not cause miscarriage, it will sometimes, in a weak and delicate woman, decidedly affect the stamina of the little one.

SECT. IX. — MENTAL INFLUENCE.

MANY women suppose that the condition of the mind of the mother has no influence upon the physical or mental constitution of the unborn child, and that violent passion, long-continued anxiety, sudden fear, and the like, are in no way productive of serious consequences. Others running into an opposite extreme, firmly believe that the imagination of the parent is capable, not merely of affecting the general constitution of the child, but of exercising a direct and extraordinary influence upon its structure and symmetry. I think it may prove useful to say a few words upon both of these errors, as I have known much mischief to arise out of them.

1. *The injurious influence of mental disturbance.*— Observation and daily experience prove the fact, that any serious mental disturbance to which the mother may be exposed during the pregnant state

will tell upon the future constitutional vigour and mental health of her offspring. Tranquillity and cheerfulness of mind are at all times highly favourable to the healthy and regular operations of the animal economy ; and if there be great mental excitement or depression during the pregnant state, it is not surprising that mischievous effects should sooner or later show themselves. A sudden gust of passion, or indeed any violent mental emotion, will sometimes be followed by an *immediate* effect upon the system, and convulsions, hæmorrhage, or a miscarriage may ensue. But where there is habitual indulgence in a life of excitement, or some cause of a depressing character constantly operating upon the system of the mother, the constitution of the child, both mental and physical, will almost invariably suffer. I believe the predisposition which some children manifest to convulsions and head affections, during infancy and childhood, very frequently has its origin in the foregoing causes ; and such cases are continually coming under the eye of the medical man.

These facts point out the great importance of protecting the pregnant woman from all circumstances likely to create disturbance of her nervous system, and ought also to make *her* doubly careful that she does not incur any risk or hazard that might be productive of consequences of a similar description.

A calm and equable temper, a life of quiet

cheerfulness and active duty, are most conducive not only to the health of the parent, but to that of the offspring also. This cannot be too strongly borne in mind.

I may here just mention, as an instance very much to the point, that very recently I was consulted by a respectable woman about an unhealthy-looking child that she brought to me, born prematurely between the seventh and eighth month. The mother's mind was greatly depressed during her pregnancy from "the worry" (as she expressed it) of her husband: a man of kind disposition naturally, but whose mind was so taken hold of by the idea that if he had so many children he should not be able to support them, that his wife had no peace day or night from this cause: a feeling on the part of the husband, entirely morbid in its character, since his circumstances were not only above want, but very respectable. In consequence of this mental harass and disturbance, she was confined shortly after the completion of the seventh month. The child born was puny and fretful, and continues so. It is now eight months old, a wasted miserable-looking object, the picture of woe. Its mother says it never smiled until it was four months old, and rarely now. The head is large, much larger than it ought to be, even making allowance for the wasted condition of the frame generally. Having carefully investigated the history of this case, I was convinced that the whole mis-

chief was clearly traceable to the mental disturbance the parent was subjected to. Her previous children were vigorous and healthy.

Pregnancy occasions in some women, in the early months, a very excitable state of their nervous system, yet without disease. In consequence of this continued irritation, the temper of such persons is sometimes rendered less gentle and patient than is consistent with their usual character. One of the most naturally amiable and sweet-tempered women that I am acquainted with, is always thus affected when pregnant; and long before there is any visible or outward sign, by her alteration of manner and morbid irritability of temper, I can always assure myself it has taken place. This claims a kindly regard and forbearance from a husband and friends, and it is right therefore that they should be acquainted with the true cause of it. I have known much domestic disquietude to arise out of an ignorance of this fact.

2. *The supposed influence of the imagination of the mother upon the child in her womb.* — This error is still extensively current; and though reason and experience concur to refute the notion of any direct influence, it is received by many as an established truth, and tends more than any other delusion of the mind, during pregnancy, to render the female truly wretched. Should a woman have an ungratified longing for some particular article of food; should she have been suddenly and

seriously frightened, — or accidentally the witness of some miserably deformed object, — she at once becomes possessed with the belief, that her unborn babe will receive some mark, blemish, or deformity — something similar to the thing longed for, or which has caused her alarm, or excited her aversion. From the time of this occurrence, the idea haunts her imagination night and day; a victim to the influence of an evil called into existence by her own fancy, she is wretched and miserable. Ashamed of her own weakness, she imparts her secret to none; she will hardly confess it to herself; yet its impression deepens upon her mind, and she looks forward to the period of her confinement with the greatest dread and apprehension. Thus the whole period of pregnancy is made a season of needless trial and suffering; and nothing pacifies her mind, or can remove her long-cherished fears, but the birth of an unblemished and healthy child.

The origin of this belief in the power of the imagination during pregnancy is coëval with our earliest records: and the multitude of instances handed down to us, in which its influence was supposed to be exerted, would fill a goodly volume.

The various deformities said to be produced in the body of the infant by this supposed powerful agent are the following:—It is affirmed to impose upon its skin certain resemblances to things

on which the fancy has been busily occupied ; such as fruit, wine, insects, or animals : to produce additional parts ; as an increased number of limbs, toes, or fingers : to destroy certain parts of the child's body ; as a leg, or arm, or both : and to effect the want of a lip or portion of it, a hand, or foot. These effects, tending either to the increase, decrease, or alteration of parts, include, I believe, every variety of case.

The most common of these deformities are the first : the marks and moles on the skin. The former, generally of a red or purplish colour, are said to resemble different sorts of fruit, — such as raspberries, strawberries, mulberries, and cherries ; and if a child is born with such a discolouration or mark on the surface of its body, it is frequently ascribed to the disappointed longings of the woman, during her pregnancy, for the particular fruit which the mark is declared to resemble. The latter, the moles, being covered with a downy hair, are compared to the skin of a mouse, mole, or some other animal ; and their presence is referred to some agitation of mind occasioned by one of these objects running in sight of, or against the individual while pregnant.

It would be easy to cite very many cases that are on record of these “discolourings of the skin, — such as redness from women's longing for claret, or having the same suddenly spilt upon them :” of marks “of foods desired, but not obtained ;” of

“excrescences, which, like the fruits they resemble, have their times of bloom, ripening, and languishing, though never quite dying or falling off themselves,” etc. etc. Here, too, might be adduced a variety of the most extraordinary cases of deformity which have been very gravely related by our forefathers; and commented upon, believed in, and added to, by a few authors even of our own day. Books abound with such statements, but their detail would only be a waste of time.

I will mention, however, one case of deformity from a deficiency of the child's body; because I believe the fact to be true (but then not brought about after the fashion which its author supposed), and because I think this illustration will serve to show the *absurdity* of the supposition. The case is related in a work published in London 1723, by Dr. Turner, entitled “De Morbis Cutaneis.” — Speaking of a man greatly deformed, he says:— “But of this kind we have a sad instance at home (I mean in the city), in a child of Sir J. B——’s. His lady, when advanced five or six months in her pregnancy, was so frightened at the unexpected view of a beggar’s stump-arm upon the coach door, that the child, of which she was afterwards delivered, was born wanting one of its hands, the stump resembling that of the beggar.” Dr. T. adds, “How these strange alterations should be wrought, or the child cut, wounded, or maimed, as if the same was really done with a weapon,

whilst the mother is unhurt, and merely by the force of the imagination, is, I must confess, above my understanding ; but it is a fact, undeniable."

Now let us for one moment consider, what an operation must have been performed to work this effect, to produce this "fact undeniable!" The child was some months old when deformity was said to be produced. It is presumed it was of the natural and perfect form, and must, therefore, at this period, have been considerable in size, and the arm itself not small. This arm, then, must drop off by the power of the imagination ; there must be no blood lost to endanger the life of the child ; and the wound must be healed before the birth. This would seem improbable enough ; but, admitting that the limb could drop off by the force of the mother's fancy, and that some cause could put a stop to the bleeding from the stump after the separation of the hand from the body, still the limb must remain in the womb until the delivery, and the bones at least could not putrefy, or waste away, although the flesh might. But is it stated in this case, or pretended in any other of a like kind, that any part of the deficient limb was found by the medical attendant, nurse, or by any body else ? — Never. We hear nothing of the decayed hand, either in this or in any similar case we may be curious enough to investigate.

Will any one have the temerity to affirm his belief that, in this case, the force of the affrighted

lady's imagination lopped off her child's limb — stanch'd the bleeding wound — healed it without a scar, — and then, by some other extraordinary mental effort, rid itself of the offensive member? Can man or woman by the force of imagination add an inch to their stature, or take an inch from it, or transform any part of *their* bodies into the resemblance of other animals, of vegetables, or of fruit? Is it not then absurd to suppose, that a woman has more influence over another than over her own body; that she should be able, by an effort of the imagination, to add new parts to a child already completely formed, — to destroy any of the parts so formed, — or transmute any of those parts into other forms of structure? There can be no doubt that deformity existed at birth in the case just quoted; but then the infant was deformed from other causes, months before the mother's alarm; and, therefore, altogether unconnected with it: at the same time, it must be confessed, the beggar's stump and the handless child were an extraordinary coincidence.

Again, with respect to marks, moles, and other blemishes in the skin, take the evidence of one who was the first physiologist, anatomist, and physician-accoucheur of his day, the late Dr. William Hunter, who investigated this subject at the lying-in hospital to which he was attached. In every one of 2000 cases of labour, as soon as the woman was delivered, he inquired of her, whether

she had been disappointed in any object of her longing; and, if she replied in the affirmative, what it was;—whether she had been surprised by any circumstance that had given her any unusual shock; and what that consisted of;—whether she had been alarmed by any object of an unsightly kind; and what that was. Then, after making a note of each of the declarations of the women, either in the affirmative or negative, he carefully examined the child; and he affirms, that he never, in a *single instance* of the 2000, met with a coincidence. He met with blemishes, when no cause was acknowledged; and found none, when it had been insisted on.

The result shown by this patient and searching investigation of Dr. Hunter must surely satisfy any reasonable mind, and it must be unnecessary to add more. In conclusion, however, I would ask, why should we be surprised at some irregularities on the skin and other parts of the human body, since we see the same thing occurring daily throughout the animal and vegetable world? They have their moles, their discolourations, their excrescences, their unnatural shapes, which it certainly would not be very philosophical to ascribe to any effort of the imagination! An eminent and clever man thus writes to his patient, a married lady*:—

* Gentleman's Magazine for October, 1764.

“ Those who have been attentive to their poultry will inform you that chickens are as liable to a preternatural structure of their organs as children. Now, the egg, in order to be hatched, is placed under the hen, the heat of whose body gives motion to the fluids which nourish the chick till it becomes sufficiently strong to break the shell, when it is produced with a claw extraordinary, or any other preternatural appearance to which chickens are liable. Now, in this case, the extraordinary claw, if we take this instance for our argument, must either have been formed in the moment of conception, or have been added at some period afterwards, when we suppose the hen to have been under the influence of some powerful imagination. If you grant that the chick was originally formed in this shape, it follows, from the rules of analogy, that all preternatural births have the same cause. If not, the fancy of the hen must have operated through the shell to work the effect. I flatter myself that this is too marvellous and absurd a notion to gain much credit from a woman of good sense. If, however, you still have a secret persuasion that the hen may, (in some wonderful manner, you know not how,) whilst she is sitting, affect the chick or the egg, so as to alter its frame, know for a certainty that eggs hatched in dunghills, stoves, and ovens, produce as many monstrous births as those which are hatched by hens ; which, I should imagine, proves irrefragably

that the chick is produced in the very shape in which it was formed."

This illustration at least seems to show how entirely unphilosophical and absurd are the views entertained on the subject before us.

Such are the errors connected with pregnancy, which I have thought it might be useful thus briefly to notice. I have known them to be a source of much mental distress and physical suffering; and if these few observations expunge them from the list of evils always supposed by many as necessarily connected with the pregnant state, I shall exceedingly rejoice, convinced that it is a process which ought not to be regarded with fear or anxiety.

Such too are a few of the directions which I would offer to the young and inexperienced married woman for the management of her health at this important and interesting period of her life. I offer them in the confident belief that their adoption will have a decided and most beneficial influence upon her own health, and with a strong conviction that hitherto, from an indifference or total neglect of these means, much misery and suffering have arisen. I would press their observance, too, upon her, from the remembrance of the fact so often dwelt upon in this Chapter, that on her judicious conduct, while pregnant, a vigorous constitution on the part of the child much depends,

and to her neglect, a feeble frame may, in a great measure, be attributed.

With one more suggestion I close the Chapter. Engage your future medical attendant early. You will then be able to seek his direction and guidance in every doubt that may arise; and confiding your fears and anxieties to him, will derive from his experience and knowledge, that rational and kindly explanation of your difficulties which may instantly dispel them.

CHAPTER II.

OF THE MODE BY WHICH PREGNANCY MAY BE
DETERMINED.

THERE are certain signs which a female is taught to regard as essential evidences of pregnancy ; and it is supposed by most, if not by all women, that their presence is absolutely necessary to the existence of this state. In reference to one or two of these signs, this is far from the fact ; for they are not unfrequently absent, although pregnancy exist, and the remainder may be present, although pregnancy be absent. Many a woman, I am confident, has from this very circumstance experienced much difficulty in attaining certainty as to her state, and suffered months of anxiety and doubt. This has arisen from a want of those clear notions, and that precise information, which a question so important demands.

The object of this chapter is to remove this difficulty, by presenting a short account of those symptoms of conception which the female may herself observe, and to point out to what extent they may be relied on. It will be necessary to notice only *four* of the signs or symptoms of preg-

nancy, and they may be considered in the order in which they usually arise: *i. e.* ceasing to be unwell; morning sickness; shooting pains through, enlargement of, and other changes of the breast; and, lastly, quickening.

SECT. I. — CEASING TO BE UNWELL.

THE first symptom of pregnancy is the omission of that regular monthly return, which, in female phraseology, would be described as “ceasing to be unwell;” and it may be adopted, as a general rule, that, in a healthy woman, whose menstruation has been established, and continued regular, and who is not nursing, “conception is followed by a suppression of the menstrual discharge at the next return of its period.” Thus, a female may have been pregnant a week or two already; but she is not aware of it till that period of the month arrives when she is accustomed to menstruate, and then, when she expects to be unwell, she finds that she is not so.

Now this symptom, as a general rule, admits of four exceptions: —

- 1st. A young woman shall never have menstruated, and yet conceive.
- 2nd. A mother shall conceive while she is nursing, and not menstruating.

3dly. A woman shall conceive, and yet be unwell during the first three, four, or more months of pregnancy.

4thly, and lastly. Occasionally conception takes place late in life, after menstruation has apparently ceased for ever.

First exception. — Many cases are on record proving this point. I have met with only two cases; one quite a girl, not having arrived at her seventeenth year, and yet was in her sixth month of pregnancy when she applied for a letter for the Finsbury Midwifery Institution; the other was in her nineteenth year. Menstruation was, subsequent to confinement, established in the first; with the result of the latter I am not acquainted.

A remarkable case is mentioned by Morgagni: — “I was acquainted,” he says, “with a maiden of a noble family, who married before menstruation took place, though the menses had been expected for some years; nevertheless she became exceedingly fruitful. We were the less surprised at this circumstance, because the same thing had happened to her mother.”

Another instance is recorded in the Philosophical Transactions for 1817, of a young woman who bore two children successively without any previous menstruation; which function did not commence till after the third pregnancy, which ended in a miscarriage.

Frank attended a patient who gave birth to three children without ever having been unwell. Capuron, also, refers to several cases of this description.

Although pregnancy under such circumstances is not of frequent occurrence, still it does now and then take place. A knowledge of the fact may therefore prove useful.

Second exception.—It is scarcely necessary to advert to the well-known fact, that a woman may conceive whilst she is nursing, without any previous return of the monthly discharge, except to expose the popular error, “that a female will not become pregnant during lactation.” This is very far from being the case. Poor women are much in the habit of nursing their infants eighteen months, two years, and even longer than this, in order to protect themselves, as they imagine, from becoming pregnant; and many a poor creature have I seen with exhausted frame and disordered general health, arising from protracted nursing, pursued alone from this mistaken notion.

I have large opportunities of investigating this, as well as the several points touched upon in this chapter. On an average, between forty and fifty poor women call upon me every month, with midwifery letters for attendance in their confinement; and the result of my inquiries upon the present question has led me to believe that

more than one third of these women have conceived at least once while nursing, and very many of them oftener.*

Mrs. M., *ætat.* 30, married six years. Became pregnant three months after her marriage. Having suckled this child for more than two years, became pregnant a second time. This last died in three weeks, and immediately after she proved pregnant for the third time. The third child she brought this morning (being out of health), and assured me that she had not seen any thing since she first conceived, *i. e.* three months after her marriage, and six years from the present time.

Mrs. W., *ætat.* 25, married five years. Has not been unwell since she first fell in the family way: is now pregnant with a third child, having hitherto fallen pregnant always whilst nursing.

Many other cases illustrative of this fact I might insert, but these suffice to prove the exception. I may just add, however, that Mr. Robertson of Manchester inquired very minutely into the result of 160 cases, in which he found that eighty-one women had become pregnant once or oftener during suckling.

Third exception. — That a woman should become pregnant, and yet be unwell during the first three, four, or more months of pregnancy, may appear

* The following cases, as well as others, are extracted from my Note Book.

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an extraordinary statement ; but it is a fact, that the menstrual discharge sometimes continues in its usual regularity for two, three, or more months after conception, and without any dangerous consequences.

It has been asserted, as an objection, that this discharge is not truly menstruation ; but the discussion of that question does not concern us here. We have only to consider whether there does not frequently, during pregnancy, take place a discharge, so closely resembling menstruation in its periods, quantity, duration, and appearance, that neither the patient herself nor her medical adviser shall be able to detect any difference between them ; and of this I have no doubt.

It may occur *once* only after conception, either in diminished quantity, or more profuse than usual. It may thus give rise to miscalculation as to the expected time of confinement.

It may continue in its usual regularity for *two* or *three months*. The following instance of a patient I attended illustrates the fact of its going on to the period of quickening : —

Mrs. R., *ætat.* 27, married eight years. Was first unwell when eighteen years of age, and continued to be so regularly until she became pregnant, two years from the time of her marriage. She suckled her first child for eleven months ; soon after became unwell, and continued so until she quickened with her second child ; a circumstance which she had not the slightest

suspicion of, for there was no perceptible difference either in the quantity or appearance of the monthly discharge. During the remaining months of gestation she did not see any thing; she afterwards suckled her little one for ten months; and then was obliged to wean the child, having an attack of cholera. She continued from this time regular for two years; but meeting with a fall, much to her surprise, two or three days after, miscarried of a four months' child. She is now pregnant again, having been regular every month till she quickened, and expects to be confined, February, 1836.

In the above case, then, this individual was unwell in two pregnancies till the period of quickening; and in the other pregnancy for four months, when miscarriage took place from accident.

And, lastly, it may occur through the *whole* period of pregnancy.

Mrs. F. is now pregnant for the third time. In her first pregnancy the monthly returns appeared for three periods, regular as to time, and in quantity and appearance as heretofore. During the second child-bearing, at every month till confinement. During the third—her present pregnancy—for three months only. This patient is always unwell while nursing.

Mrs. J., now in her eighth pregnancy, was unwell every month throughout the first six pregnancies; the quantity, however, was always slightly diminished. In the seventh, the same circumstance occurred; but

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premature labour was this time induced, between the sixth and seventh months, by a fall. During the present pregnancy she has not seen any thing. Is always unwell whilst suckling.

Mrs. P. is in her fourth pregnancy. In the first three was unwell, at her regular periods, to the time of confinement. The discharge the same in quantity, but of rather lighter appearance. Has been unwell in her present pregnancy every month up to the present time.

Dr. Heberden, in his Commentaries, mentions that he was acquainted with a lady who never ceased to have regular returns of the menses during four pregnancies; quite to the time of her delivery. This opinion is confirmed by Gardien, Dewees, Hamilton, Desormeaux, Puzos, and others.

The following case proves how important it is that this fact should be generally known; for up to a very late period, some medical men have even denied the possibility of this occurrence.

The case I refer to was that of a young lady, privately married, the gradual enlargement of whose abdomen was decided by her medical attendant to arise from dropsy; for, although she had most of the symptoms of pregnancy, and the medical man was aware she had been married eight months, still, as *she continued to menstruate*, he declared it impossible that she could be pregnant. Tapping was proposed; and, except that her general health suffered much at this

time, the operation would have been performed. The delay saved the patient such unfortunate and mistaken treatment—it might have proved fatal in its results—and she shortly gave birth to a living and healthy male child.

Fourth exception. — That women late in life have conceived after menstruation had apparently ceased for ever, the following cases prove.

In September, 1834, I was called to the assistance of a female in labour in her 49th year. She had not been pregnant for twelve years, and supposed she had ceased to menstruate two years previous to the labour referred to. She did well, and never afterwards saw any thing.

Mrs. B., ætat. 39. Has been married eighteen years; commenced to be unwell very early in life. Has had three children; the last pregnancy seven years since. Is now again pregnant, her menses having left her sixteen weeks prior to conception; before which she had been very irregular, and supposed she had ceased to be unwell for ever.

Other cases of a similar nature are on record. There can be no doubt they are authentic; but at the same time it must be acknowledged that a woman is not unlikely to be deceived, by the irregularity which attends the returns of this discharge late in life. It so happens, too, that just before the change of life takes place, there appears in the constitution of some women a great

disposition to pregnancy; so that many who have ceased to bear children for years, or have been hitherto barren through the whole of their married existence, at this time, to the surprise of their friends and themselves, become pregnant.

“A woman came to me one morning,” says Dr. Gooch, “with a note from a medical man, containing the following statement:— ‘The patient’s age was forty-two; she had been married twenty-two years without ever being pregnant. About seven months ago she had ceased to menstruate; a few months afterwards the abdomen began to enlarge, and was now nearly equal to that of full pregnancy. For several months the practitioner had been using various means for reducing the tumour, but in vain. I examined the case, pronounced her pregnant, and seven weeks afterwards she brought forth a child at the full time.’”

Dr. Montgomery says:—“A lady in her forty-third year, who was married to her present husband twenty years ago, remained without any promise of offspring until within the last few months; but, having missed her menstruation in September last, and finding her size increasing, I was requested to see her in January, when she exhibited evident symptoms of pregnancy. She was subsequently delivered of a healthy boy, after a natural labour of about four hours.”

Mosse, one of the medical officers of the Dublin

Lying-in Hospital in 1775, states, that eighty-four of the women delivered in the Institution under his superintendence were between the ages of forty-one and fifty-four; four of these were in the fifty-first year, and one in her fifty-fourth.

In May, 1816, Mrs. Ashley, wife of John Ashley, grazier of Frisby, near Spilsby, at the age of fifty-four years was delivered of two female children.

The succession to an estate was disputed in France because the mother was fifty-eight years old when the child was born. The decision was in favour of the fact.

A knowledge of these facts must be useful, as they will tend to allay apprehension at what might be supposed disease, both by the mother and by the hitherto childless woman.

A female must not forget, however, that she may mistake her condition, and that such mistakes are not at all unlikely to arise from the circumstance that the symptoms which naturally accompany the *cessation* of menstruation much resemble those of pregnancy. She passes over the menstrual period;—she is struck with this. Other symptoms are soon manifested: the size increases,—the breasts even become swollen and painful,—the stomach disordered, and the appetite capricious;—flatulence collects in the intestines; and whilst on this account the size still increases, the air moving about the bowels

gives an inward sensation which is mistaken by the female for the plunging of the child. Time alone, or the investigation of the medical attendant, detects the mistake; and the symptoms are then to be easily removed by the exhibition of carminative and purgative medicines, the use of active exercises, and bandaging the distended abdomen.

It must be remembered also, that *suppression* of the monthly return may arise from a variety of causes, altogether independent of conception. Every woman is aware that exposure to cold, just before the expected period, is a frequent cause. Different forms of disease, hardships, or mental emotions, may produce the same result. It does not follow, therefore, because a woman ceases to menstruate, she *must* be pregnant; which naturally presents this inquiry,—what dependence, then, is to be placed upon the omission of menstruation as a symptom or sign of pregnancy?

When a woman ceases to be unwell, and experiences other symptoms of pregnancy, she must consider her situation as yet uncertain, because these signs are common to disease as well as pregnancy. But if towards the third month, while the suppression continues, she recovers her health, and if her appetite and colour return, she needs no better proof of pregnancy; for under other circumstances her health would remain impaired, and even become worse.

SECT. II. — MORNING SICKNESS.

SOON after conception, the stomach often becomes affected with what is called "morning sickness." On first awaking, the woman feels as well as usual; but on rising from her bed qualmishness begins, and perhaps, whilst in the act of dressing, retching takes place.

This symptom may occur almost immediately after conception; but it most frequently commences for the first time between two and three weeks after. Now and then it is experienced only the last six weeks or two months of pregnancy, when it is attended, generally, with much distress and discomfort. And, lastly, it is not unfrequently absent altogether.

It continues, more or less, during the first half of pregnancy, and subsides about the time when the movements of the child begin to be felt.

Irritability of the stomach, however, may arise from a variety of causes totally independent of pregnancy, and connected with disease or disordered function. Of what avail then, it will be asked, is this symptom, as a sign of pregnancy? It is so far available:—

The nausea and vomiting of pregnancy is not accompanied by any other symptom of ill health; but, on the contrary, the patient feels as well as ever in other respects, and perchance takes her

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meals with as much appetite and relish as formerly ; but while doing so, or immediately after, she feels suddenly sick, and has hardly time to retire, when she rejects the whole contents of her stomach, and very shortly after is quite well again. Not so with sickness arising from disease, or disordered condition of the stomach.

SECT. III. — SHOOTING PAINS THROUGH — ENLARGEMENT OF — AND OTHER CHANGES OF THE BREASTS.

WHEN two months of pregnancy have been completed, an uneasy sensation of throbbing and stretching fulness is experienced, accompanied with tingling about the middle of the breast, centering in the nipple. A sensible alteration in their appearance soon follows: they grow larger and more firm. The nipple becomes more prominent, and the circle around its base altered in colour and structure, constituting what is called “the areola.” And as pregnancy advances, milk is secreted.

The period of gestation at which these changes may occur, as well as the degree in which they become manifested, vary very much. Sometimes, with the exception of the secretion of milk, they are recognised very soon after conception ; — in other instances, particularly in women of a weakly

and delicate constitution, they are hardly perceptible until pregnancy is far advanced, or even drawing towards its termination.

Enlargement of the Breast. — The changes in the form and size of the breast may be the result of causes unconnected with pregnancy. They may enlarge in consequence of marriage, — from the individual becoming stout and fat, — or from accidental suppression of the monthly return. There are, however, these differences: enlargement from pregnancy may in general be distinguished from that produced merely from fat by the greater firmness of the breast, and its knotty uneven feel, — it is heavier; and from the tension and enlargement from suppressed menstruation, by the latter subsiding in two or three days, whereas that caused by pregnancy continues to increase. Nevertheless, the dependence which may be placed upon the enlargement of the breast only, as an evidence of pregnancy, is not very great, and, considered alone, but a doubtful sign.

The Nipple. — Not so the changes which take place in the nipple, and around its base. These alterations, if present, are of the utmost value, as an evidence of pregnancy. The changes referred to are these: —

About the sixth or seventh week after conception has taken place, if the nipple be examined, it

will be found becoming turgid and prominent, and a circle forming around its base, of a colour deeper in its shade than rose or flesh colour, slightly tinged with a yellowish or brownish hue; and here and there upon its surface will be seen little prominent points, from about ten to twenty in number. In the progress of the next six or seven weeks, these changes are fully developed; the nipple being more prominent and turgid than ever; the circle around it of larger dimensions, of an extent of about an inch or an inch and a half; the skin being soft, bedewed with a slight degree of moisture, frequently staining the linen in contact with it; the little prominences of larger size, from the sixteenth to the twelfth of an inch perhaps; and the colour of the whole very much deepened, but always modified by the complexion of the individual, being darker in persons with black hair, dark eyes, and sallow skins, than in those of fair hair, light-coloured eyes, and delicate complexions.

Such are the essential characteristics of the true areola, — the result of pregnancy, and, I believe, of that condition only.

This, then, is a most valuable sign; but, unfortunately, it is frequently absent; and how often it is present, although I have examined many hundred cases for it, I cannot determine, as unfortunately no note was made upon this point. It should, also, be observed, that, both in dark and

fair women, the change of colour, without the other appearances, may be present, and yet pregnancy exist; and I have also seen frequently the dark circle alone, where pregnancy did not exist; but I never saw an instance where these prominences were truly developed, without the presence of pregnancy.

This fact has been more particularly noticed of late years by an eminent physician-accoucheur, and the attention of the author has, in consequence, been much directed to it; and, as a striking illustration of its truth, he may mention that, called upon very recently to visit one of the Institution patients the third day after her delivery, and having occasion to examine the breast, he pointed out to the gentleman in attendance the presence of these little prominences around the base of the nipple; upon which the patient, to his great surprise, immediately observed, "Ah, sir, I always know when I am pregnant by them; for they appear about ten days or a fortnight after its occurrence, and subsequent to delivery diminish gradually, as my milk leaves me."

It has occurred to me during the past year to be consulted in five cases of doubtful pregnancy. In *two* of them, circumstances forbade the probability of its occurrence; but in both the true areola was distinctly and fully developed. It decided my opinion; and the result proved its correctness: both became mothers. *Two others*

had made themselves patients of the Lying-in Institution, having obtained letters for attendance from governors of the charity, and upon which was marked, by their own calculation, the month of their expected confinement. But I was led to believe, from observing two or three symptoms, that pregnancy did not exist. Their cases were examined, and at last the breast: in both the true areola was wanting; the review of symptoms decided all doubts. Had, however, the true areola been present in either, it would at once have reversed, instead of confirming, my first suspicions. The *fifth* was pregnant, but the true areola wanting; and I was obliged to refer to those signs which can alone be recognised by a medical man.

The absence, then, of this sign, except in combination with other circumstances, proves nothing; but, if present, I believe it conclusive.

The Presence of Milk. — With regard to the presence of milk in the breast, as this is a symptom which may arise, and does very generally, in the latter months of gestation alone, when the existence of pregnancy has been long determined, it is only mentioned here to refute the popular error, “that the presence of milk in the breasts is an infallible proof of pregnancy.” It is no such thing; and many well-recorded instances could be brought forward to prove the possibility of its

formation under circumstances totally independent of pregnancy.

Belloc speaks of a servant girl, who being obliged to have sleeping with her an infant who was being weaned, and which by its crying disturbed her rest, bethought her of giving it her breast to appease its clamour ; and the result was that in a short time she had milk enough to satisfy the child.*

The following case is related by Mr. George Semple : — “Mrs. B., wife of John Breward, Simpson Green, near Idle, aged forty-nine, the mother of nine children, the youngest of whom is twelve years old, lost a daughter-in-law about a year ago, who died in about a fortnight after giving birth to her first child. On her death, Mrs. B. took charge of the infant, a little puny, sickly baby. The child was so fretful and uneasy, that Mrs. B., after many sleepless nights, was induced to permit the child to take her nipple into its mouth. In the course of from thirty to thirty-six hours she felt very unwell ; her breasts became extremely painful, considerably increased in size, and soon after, to her utter astonishment, milk was secreted, and poured forth in the same abundance as on former occasions, after the birth of her own children. The child, now a year old, is a fine, thriving, healthy girl ; and only a few days ago I saw her eagerly engaged in obtaining

* Cours de Méd. Légale, p. 52.

an apparently abundant supply of healthy nourishment, from the same fountain which, nearly twenty years ago, poured forth its resources for the support of her father.”*

That the presence of milk in the female breast shall take place independent of pregnancy, from the above, and other recorded facts, there can be no doubt; but the following beautiful exemplification of its formation in that of the *male*, places the question in a still stronger light. This interesting fact is cited from Captain Franklin's Narrative of his Journey to the Shores of the Polar Sea.

“A young Chipewyan had separated from the rest of his band, for the purpose of trenching beaver, when his wife, who was his sole companion, and in her first pregnancy, was seized with the pains of labour. She died on the third day, after she had given birth to a boy. The husband was inconsolable, and vowed in his anguish never to take another woman to wife; but his grief was soon in some degree absorbed in anxiety for the fate of his infant son. To preserve its life he descended to the office of a nurse, so degrading in the eyes of a Chipewyan, as partaking of the duties of a woman. He swaddled it in soft moss, fed it with broth made from the flesh of the deer; and to still its cries, applied it to his breast, praying earnestly to the Great Master of Life to assist

* North of Engl. Med. and Surg. Journ. vol. i. p. 230.

his endeavours. The force of the powerful passion by which he was actuated produced the same effect in his case as it has done in some others which are recorded : a flow of milk actually took place from his breast. He succeeded in rearing his child ; taught him to be a hunter ; and, when he attained the age of manhood, chose him a wife from the tribe. The old man kept his vow in never taking a wife for himself, but he delighted in tending his son's children ; and when his daughter-in-law used to interfere, saying that it was not the occupation of a man, he was wont to reply, that he had promised the Great Master of Life, if his child was spared, never to be proud like the other Indians. Our informant, Mr. Wenkel (one of the Association), added, that he had often seen this Indian in his old age ; and that his left breast, even then, retained the unusual size it had acquired in his occupation of nurse." (P. 157.)

Man possesses the same organization as woman for secreting and conveying milk, which enables us readily both to understand and believe in the truth of the foregoing singular statement.

SECT. IV. — QUICKENING.

THERE is only one other symptom which I think it useful to notice, *i. e.* quickening ; by which is meant, the first sensation experienced by

the mother of the *life* of the child within her womb.

The first time this motion of the child occurs, the sensation is like that of the fluttering of a bird within her; and so sudden that she frequently faints, or falls into an hysterical paroxysm. A day or two passes by, when it recurs. It afterwards increases both in frequency and degree, until the movements of the child are fully recognised.

The *period* when quickening takes place is *very uncertain*. An impression is extensively prevalent that it always occurs *exactly* at the end of four calendar months and a half; but this is not the case; it varies in different women, and in the same women during different pregnancies, as the following instances will prove.

Mrs. F. quickened with her first child at *four* months; quickened with the second at *fourteen weeks*; and is now in her third pregnancy, and reckons from the *fourteenth week* again.

Mrs. B. has had seven children, and with all felt the motion of the child for the first time at the *third month*.

Mrs. McM. has been several times pregnant; seldom feels the movements of the child at all until the *sixth month*, and *not strongly* till the *eighth*.

The annexed table of the periods of quickening

of 70 cases, taken in the order in which they have been entered in the author's note-book, will forcibly stamp the truth of these opinions: —

Number of Cases.	Date of Pregnancy at which Quickening took place.
70	9 . . . At the third month.
	11 . . . At three months and a half.
	21 . . . At the fourth month.
	16 . . . At four months and a half.
	8 . . . At the fifth month.
	1 . . . At five months and a half.
	4 . . . At the sixth month.

In a few of these cases, for the sake of convenience, I have used round numbers, when two or three days either before or after was the exact time; and for the sake of correctness, have omitted several cases, in which there was the slightest doubt in the patient's mind of the exact time.

It appears from this table that this symptom takes place more frequently between the 12th and 16th week, than before or after these periods; and that subsequently to the $4\frac{1}{2}$ and before the expiration of the 6th month, it may occur in the proportion of more than one case out of every five.—Before the 3d month, quickening seldom arises.

This symptom may not be felt by the mother at all, and yet pregnancy exist. This is rare, but the

fact is confirmed by many writers; and I have met, during the last seven years, with two instances, and in both the mothers gave birth to living and healthy children.

Now comes the question, how far this symptom is of value as a sign of the pregnant state?

If it has been experienced in former pregnancies, it is invaluable; for I believe it is not to be mistaken. If it is a first pregnancy, and doubtful, it removes all obscurity, provided the sensation grows stronger and stronger, until the movements of the child are distinctly felt.

Four only of the symptoms of pregnancy have been noticed, because the remainder are not recognisable, except by the accoucheur, although to him of the greatest value when pregnancy is complicated and doubtful from the presence of disease.

The nature of these symptoms have been described as plainly, and yet as briefly as possible, because of the importance of their being clearly understood by the married woman.

I have also endeavoured to point out their real value as evidences of pregnancy — how they are sometimes absent in patients who are pregnant, and some of them present in those who are not so — because of the doubt and obscurity which arise from these variations.

And, lastly, in bringing these observations to a conclusion, I venture to say, that if the married

woman will only take the trouble to make herself familiar with this little detail, she will not regret the time as lost or mis-spent ; because it will generally guide her right, and I trust save her many moments of anxiety and discomfort.

CHAPTER III.

OF THE DISEASES OF PREGNANCY, AND HINTS FOR THEIR PREVENTION AND RELIEF.

IN describing the diseases which are incident to the whole period of pregnancy, my design is to take a general popular survey of the subject. I wish simply to communicate that kind of information which every married and well-educated woman should certainly possess, and can usefully employ. To advance farther than this, to those points upon which the assistance of the medical adviser ought to be sought, would be on every account improper, and productive rather of evil than of good.

There is no organ in the body, with the exception of the stomach, that exercises a more extensive control over the female system than the womb. Hence, when in the condition of pregnancy, it affects, directly or indirectly, various parts of that system. The effects of pregnancy, however, vary much, according to the constitution of the female.

Occasionally a very salutary change is produced, so that the individual enjoys better health during gestation than before. The delicate and frequent-ailing girl, for instance — the propriety of whose

marrying was a matter of doubt among her friends — becoming pregnant, will sometimes, instead of realising the apprehensions and fears of those most dear to her, acquire new life and vigour from the altered circumstances of her condition. On the other hand, it is sometimes the case that harassing and painful symptoms will arise. These are designated the “diseases of pregnancy.”

SECT. I. — MORNING SICKNESS.

NAUSEA, or vomiting, is one of the most common and distressing affections of pregnancy. It is chiefly troublesome in the earlier months of gestation, continuing until the period of quickening, when it decreases or ceases spontaneously ; — or, it does not occur until the latter months of pregnancy, when it subsides only upon delivery.

SICKNESS DURING THE EARLIER MONTHS. — This arises solely from sympathy with the newly-commenced action, and irritable condition of the womb. This is evident from the fact, that, as the novelty of the pregnant state ceases, and the stomach becomes accustomed to it, the sickness subsides gradually, and is rarely troublesome afterwards.

It occasionally commences immediately after conception; and it is a remarkable fact, that a

pregnant woman scarcely ever feels sick, until she first gets upon her feet in the morning. Hence it is called the "morning sickness." She awakes refreshed and well, arises from her bed, and whilst dressing begins to feel qualmish. At the breakfast-table she has no appetite; or if she takes any thing, is shortly obliged to leave for her dressing-room, where she returns what she has taken; — or, if she has been unable to take any thing, ejects a fluid, limpid, thin, and watery; and if the vomiting increases in severity, bile is thrown up at the same time. After the lapse of three or four hours, she feels quite well again, and by dinner-time sits down with an appetite to her meal.

Sickness without disordered digestive organs. — If there is merely nausea or vomiting, without the presence of bile, it is evident that it arises solely from irritability of the stomach, and is not connected with a disordered condition of the digestive organs; which latter circumstance is not unfrequently the case. The best means that can be employed to relieve this irritable state will be found in the following draught, taken twice a day for several days: —

Magnesia, fifteen grains;

Tincture of calumba, one drachm;

Distilled peppermint-water, one ounce and a half.

Medicine sometimes is hardly called for; and

I have known a tumbler of warm chamomile tea*, or even warm water only, taken immediately nausea was felt, by inducing immediate vomiting, tranquillise the disturbed stomach, and thus abridge the morning attack. It is sometimes attended with advantage to take the chamomile tea from half an hour to an hour before rising. I advised this with the most marked success very lately in the case of a lady who was very much reduced by the morning sickness. It had continued for several weeks, and with so much violence and straining as to cause blood to be ejected with the fluid. In less than one week, when all other means had previously failed, the above suggestion was successful.

It frequently happens that the acidity is very great; in which case 15 or 20 grains of magnesia should be taken in a wine-glass of milk — or, if it is preferred, a small tumbler of soda water; but the latter must not be persevered in for any great length of time, as it will then become injurious. The presence of acidity, however, is sometimes so difficult to overcome by alkalies, that these medicines must be given up, and acid remedies employed. Lemonade may first be taken, but lemon-juice and water is still better.

The *state of the bowels* must not be forgotten;

* Take of chamomile flowers, two drachms; boiling water, half a pint. Macerate for ten minutes in a lightly-covered vessel, and strain.

and if any of the latter remedies are resorted to, the most marked benefit will be derived from a gentle dose of Epsom or Cheltenham salts every second morning, if so often necessary.

The diet in such a case must also be carefully attended to; but as this point will be referred to more particularly presently, it is only necessary now to say that the quantity of food taken must bear some proportion to the slightly diminished powers of the digestive functions, and that it will be well, when the sickness is very obstinate and distressing, to take no food at all for several hours after rising. If after a few hours the mouth is much parched, it may be moistened with a little broth, or weak beef-tea; but let nothing more be taken for five or six hours, and it is most probable that the sickness, which has resisted all other means, will thus be relieved.

Sickness, with disordered digestive organs. — If this irritable state of the stomach is connected with a disordered condition of the digestive organs, the sickness will be accompanied with the presence of bile in the matter vomited, a furred tongue, confined or irregular action of the bowels, and occasionally with what is termed “a sick head-ach.” These symptoms are to be relieved by medicines which thoroughly clear out the bowels, allay the irritability of the stomach, and afterwards by those which restore tone to both. But it is to be observed, that the following directions

are only intended to apply to those simple cases in which, whether necessary or not, no one ever thinks of consulting their medical adviser, and for which it is certainly desirable that they should have some judicious directions, rather than be left entirely without them. If these symptoms become at all aggravated, it is requisite that they should make immediate application for professional advice.

The bowels will need, in the first instance, a draught composed of infusion of senna and Epsom salts — the common “black draught” — with half a drachm of the tincture of henbane in addition. This, with five grains of blue pill, most probably effects the object desired: the bowels will be well purged, and the tongue become clean.

The next thing is to allay the irritability of the stomach, which is to be accomplished by the means already pointed out — either the effervescing draught of soda, the magnesia, or the chamomile tea, &c. ; but in connection with this, two or three grains of the purified extract of aloes, with an equal quantity of the extract of henbane, must be taken two or three times a week, at bedtime. This will keep the tongue still clean, and the bowels in order.

After a little time, the sickness having subsided, tonic medicines may be taken; and a fourth part of the following mixture, taken three times a day, will, under the present circumstances, be the best

means of restoring the tone of the stomach and bowels :—

Sulphate of quinine, six grains ;
 Diluted sulphuric acid, half a drachm ;
 Infusion of calumba, five ounces and a half ;
 Simple syrup, half an ounce.

Sickness of a very obstinate character. — Having pointed out the means for mitigating sickness in the early months, there only remains one additional suggestion to make; and it is, that all the remedies for relief detailed may, in some case, fail. The sickness continues most obstinate; every time the individual takes food, or even sometimes when abstaining from it, she vomits; and at last, from this excessive irritability and long-continued violent action of the stomach, symptoms threatening miscarriage will manifest themselves. There is generally in such a case pain and a sensation of tension about the pit of the stomach, increased after every attack of sickness. If symptoms of miscarriage are not present, the application of nine or twelve leeches to the stomach, and pieces of soft linen rag well soaked with laudanum, constantly applied and renewed, will give the most decided relief. If, however, there is pain in the loins and hips, increasing in frequency and power, becoming at last slightly bearing down, I strongly advise the patient to consult her medical adviser, as the loss of a little blood from the arm, perfect rest in the re-

cumbent position, and other directions' which he alone can give, will in such a case be absolutely necessary ; and I may add, if perseveringly acted up to by the patient herself, be certainly followed with success.

SICKNESS AT THE CONCLUSION OF PREGNANCY.— This arises from the distended state of the womb affecting mechanically, by its pressure, the coats of the stomach, and certain parts in its neighbourhood.

This form of vomiting but rarely occurs ; for do not let me be supposed to refer to the sickness which sometimes immediately precedes, and generally accompanies, the early part of labour. I am speaking of that irritability of the stomach which may arise about the sixth, seventh, or eighth month, and from which the individual has been entirely free during the previous months of gestation, and now producing vomiting of an exceedingly troublesome form.

A lady suffering from sickness thus late in pregnancy ought to seek medical advice at once. From this cause, if severe, premature labour might be brought on ; and judicious medical treatment is always decidedly necessary to mitigate this form of the complaint. The patient must lose a little blood ; she must keep strictly to her sofa, and the bowels ought to be gently acted upon by small doses of Cheltenham or Epsom salts. A grain of

the extract of opium may be given to allay the irritability at night, and cloths dipped in laudanum frequently applied to the pit of the stomach.

In all forms of sickness arising from pregnancy as its cause, the diet must be light, mild, and nutritious, taken in moderate quantities of three or four meals a day. It should consist of mild animal food, boiled or roasted. Chicken, game, mutton or beef roasted, are the viands most nutritious and easily digested. Stale pure bread untoasted, or captain's biscuit, mealy potatoes, or well-boiled rice, in moderate quantities, may be taken with animal food for dinner. A glass of port wine with warm water, at the conclusion of the meal, is the best kind of beverage.

Advantage has often been derived from always taking brown bread, and Jamaica sugar in the morning's coffee. The healthy operation of the bowels has been thus promoted; although a system of regular walking exercise, apportioned to the strength, and short of fatigue, will generally effect this purpose, while at the same time it gives tone to the general health. Fatigue of body is sedulously to be avoided. Slow and moderate walks, exercise in an open carriage or on horseback (if the patient has sufficient strength), should be daily obtained between breakfast and dinner; always avoiding to sit down to the latter meal tired, and therefore, probably, with a blunted appetite.

SECT. II. — HEARTBURN.

THIS is a very distressing symptom, and occurs early after conception ; sometimes, however, not till after the fourth month ; and occasionally is absent altogether. It is produced by an acid forming in the stomach, which rises into the throat ; and, from the sensation it occasions, is called *heartburn*.

It is a very common complaint of pregnancy ; and every woman knows that she finds relief by taking a little magnesia, or chalk, or lime-water and milk, with the occasional use of magnesia : but although these means generally mitigate this symptom, it is sometimes very severe, and almost intractable, and they fail. Under such circumstances, the following draught taken three times a day, and continued for three or four days, will remove the complaint : —

Magnesia, fifteen grains ;
Solution of the subcarbonate of ammonia, ten drops ;
Distilled peppermint-water,
Distilled water, of each, six drachms.

If the bowels are confined, as is frequently the case, mild doses of Epsom or Cheltenham salts will be the best aperients. The use of these must be regulated by circumstances — taken every second, third, or fourth day ; that is, resorted to

with sufficient frequency and perseverance to guard against costiveness.

The *diet* must also in every case be strictly attended to, regulated upon the plan already stated.

SECT. III. — COSTIVENESS.

A COSTIVE state of bowels is one of the most common, and, at the same time, troublesome, of the diseases of pregnancy. It arises partly from the increased activity which is going on in the womb, and which induces a sluggish condition of the bowels, and partly from the pressure of the now enlarged and expanded womb on the bowels themselves.

A confined state of bowels is the frequent source of many and serious evils; it is therefore highly important to be vigilant, and guard against it.

First, — Because, as before stated, pregnancy itself predisposes to constipation.

Secondly, — Because it is much more easily prevented than removed, when, after several days' confinement, an accumulation of hardened fæces has collected in the lower bowel.

Thirdly, — Because such an accumulation may give rise to inflammation of the bowel itself, and, in the earlier months of pregnancy, to miscarriage. And,

Lastly,—Because, if a woman falls into labour with her intestinal canal so loaded, it will of itself be sufficient to render, what would otherwise have been a quick, easy, and safe labour, a long, painful, and difficult one; and may be the cause also of very serious and alarming symptoms, some forty or eight-and-forty hours after her labour is over.

A well-conducted regimen, and a careful attention to the regulation of the bowels during pregnancy, contribute most essentially to a good labour and a good getting up.

The first and leading symptom of this affection is a costive or more consistent state than usual of the faecal excretions, with a less frequent call for evacuation than is customary with the individual when in health. If this is not attended to, and several days, perhaps a week, pass by without the bowels being relieved at all, pain in the head, a foul tongue, and an increased degree of fulness and tension of the abdomen, are experienced. These symptoms are followed, in all probability, by thin watery evacuations, attended with pain, weight, and pressure about the lower bowel: they become frequent; and the individual at last, finding the bowels are not only open again, but even loose, takes chalk mixture. She is not aware that this very looseness is nothing more than increased secretion of the lining membrane of the bowel, caused by the pressure of the accu-

mulated mass of hardened fæces, which it passes and leaves unmoved. The chalk mixture relieves the irritation upon which the looseness depends ; but the disease is not removed, and instead of its being a case simply of costiveness, it has now become one of constipation : an accumulation of hardened stool is distending and irritating, by its pressure, the lower bowel and the womb, and the serious consequences before enumerated may follow.

Very often have I been consulted by a patient far advanced in pregnancy, for what she has supposed mere looseness of bowels, which has readily been found to originate under circumstances like these. It is of the highest importance that the patient should endeavour to guard against such a result ; and without doubt she may avoid it, and regulate her bowels with great comfort to herself, throughout the whole period of pregnancy, if she will only use the means.

The means for regulating the bowels. — In pointing out a plan to accomplish this desirable object, next to a careful observance of the general measures alluded to in a former chapter, the first prescription I have to offer is by far the most valuable — “prevention is more easy than cure.” If the bowels are sluggish to-day — that is to say, if they are not as freely relieved as usual — and you do not assist them by medicine, depend upon it to-morrow they will be confined, and

there will be no relief at all. If, then, the bowels are *disposed* to be costive, I would recommend one large table-spoonful of castor oil (if it does not nauseate the stomach)*, and advise that the dose be repeated in four hours, if the desired effect has not been produced. Or, a wine-glass of beaume de vie may be taken at night; and early the next morning, before leaving the dressing-room, the lavement used — the fluid injected to consist of a pint of blood-warm water, thin gruel, barley-water, or milk and water.

The following pills will be generally found useful for the same purpose, and may be kept in the patient's bed-room: —

Compound extract of colocynth, forty grains;
Extract of henbane, twenty grains;
Mix, and divide into twelve pills.

Two or three of these may be taken at bedtime, when the bowels have not been, during the day, satisfactorily relieved. These are always ready in the bed-room; and as they generally answer the object efficiently, and with comfort to the patient, are the most convenient form of aperient.

It will now and then happen, however, that the day has been allowed to slip by. When this is the case, in combination with medicine the use of the

* The nauseous taste of castor oil is pretty effectually disguised by mixing it with warm milk, adding about ten drops of the sweet spirits of nitre, and a drop of the oil of cinnamon.

lavement is desirable. Medicine alone will not answer the purpose, unless it be taken in doses so strong as will not only move the bowels but irritate them too. With the exhibition of the warm water or gruel, mild aperients never fail. Women, generally, are averse to the use of the lavement, and it is a prejudice which is most deeply to be regretted. I have known purgative medicines so often resorted to, and in time so increased in power and quantity, because they began to lose their effect, that, by their continued irritation, disease of the lower bowel has been produced, and death has at last been the consequence. If, then, the bowels have been one or two days confined, the lavement in the morning will render much less medicine necessary, and frequently have an effect when medicine alone would not. Many ladies use this remedy alone, every second or third morning, during the latter weeks of pregnancy; and by this means they regulate their bowels — which would otherwise be confined — with great comfort to themselves, and need no medicine at all.

I will only add one word, in conclusion, upon this subject. Let it be remembered, that if the bowels have been confined several days, and diarrhoea comes on, that this is not a natural relief, but the effect of irritation, caused by the presence of a loaded state of the lower bowel, which must be quickly removed by the medical attendant, or

it may give rise to some one of those serious evils already enumerated.

SECT. IV. — DIARRHŒA.

AN affection the very opposite to that which has just been discussed may occur during pregnancy. We have seen how diarrhœa may arise as a symptom of costiveness. It will manifest itself, however, independently of such a cause. The intestines may participate in the irritability of the womb; and, their vermicular action becoming morbidly increased, diarrhœa is the consequence. It is a disease which varies very much in different individuals, and may clearly be divided into two kinds.

One, in which the motions are more loose and frequent than in health, but not otherwise much altered in their appearance. The tongue is clean or only slightly white, and the appetite is pretty good. No medicine is required here; a careful diet will correct the evil.

In the other case, the stools are liquid, dark-coloured, and very offensive; accompanied with a coated tongue, bad taste, offensive breath, loss of appetite, and more or less disorder of the digestive organs. In these latter circumstances, I have found at first the following draught, given every three or four hours, very useful: —

Rhubarb, eight grains ;
Ipecacuanha, one grain ;
Dill-water, one ounce.

As the tongue cleans, and the stools become more natural, a wine-glass, three times a day, of some bitter infusion, such as cascarilla, orange-peel, or gentian, may be taken with advantage. If the diarrhoea continues for any length of time, it is always wise to have the surface of the body kept warm with flannel, and this is best accomplished by a flannel roller bound gently round the abdomen.

But in either form of this disease, whatever remedies are proposed, there is one mode of treatment applicable to both, and which is the most important of all — a proper system of *diet*. The food must be sparing in quantity, of the mildest quality, and such as to leave, after the process of digestion, as little excrementitious matter as possible.

In a recent attack, the *first* day the patient should only take mild drinks, containing a small quantity of unirritating nutriment ; such as barley-water, or arrow-root made with water. During the *next* day or *two* the same diet must be continued ; but may be given in larger quantity, and of greater strength. Tapioca, sago, and rice-gruel, might be added to the list. When the irritation is somewhat allayed, on the *third* or *fourth* day perhaps, broth may be taken ; but no solid food

of any kind, least of all solid animal food, until the disease is removed or greatly allayed. As soon as this is the case, a small quantity of the lightest animal food may be taken: chicken, with well-boiled rice, game, roast mutton and beef, may follow; but lamb and veal, for the future, should be avoided.

It may be observed, that in some cases, where the diarrhoea has been of long standing, a *drier* diet is best, the liquid food appearing to keep up the disease. Rice well boiled, and merely moistened with a little broth, is the best and one of the most desirable articles of diet in such cases.

SECT. V.—PALPITATION OF THE HEART.

THIS is an affection so common and well known that it is unnecessary to describe it. If it occur for the first time during pregnancy, it is rarely connected with disease of the heart itself: it is therefore without danger, although a very distressing symptom. Occasionally there is connected with it throbbing of the vessels in the temples, as also in the abdomen; the latter not unfrequently mistaken by the patient for the pulsatory beatings of the heart itself.

It will make its attack repeatedly in the course of a day, particularly after a meal; and very frequently at night, on first lying down in bed;

and it may be brought on at any time by the slightest agitation of mind.

Treatment for an attack. — When it comes on it is to be relieved by putting the hands and arms up to the elbows in water, as warm as can be borne — friction with the warm hand applied to the feet — absolute rest — and taking the following draught : —

Compound spirits of ammonia, half a tea-spoonful ;
Camphor mixture, a wine-glass.

It may be repeated again in an hour or so, if necessary. It will be well to keep a bottle of this mixture in the bed-room ; a resource will always be then at hand, and the dread which attends anticipation in a great measure removed. This is the more necessary, as an attack, if it comes on in the night, is always very distressing. The patient awakes, perhaps out of a frightful dream, with a sense of fluttering in the region of the heart — calls out for breath — begs to have the curtains of the bed withdrawn, the door of the room opened — and will tell you she feels as if she was dying ; — wine, brandy, any stimulant that is at hand is resorted to, for the husband or friend of the patient is naturally much excited, and in his alarm scarcely knows how to act. Now there is no occasion for alarm ; the sufferer must be assured of this ; her mind must be soothed and quieted ; the means just pointed out for the relief of a paroxysm

must be used ; the palpitation will after a little time cease, and the patient will drop off into a quiet and tranquil sleep.

These attacks may be prevented by taking for ten days or a fortnight a tea-spoonful of the following electuary, three times a day : —

Carbonate of iron, one ounce and a half ;

Syrup of ginger, one ounce and a half.

The bowels must be carefully regulated ; a wine-glass of beaume de vie is the best aperient, provided there are no piles. Fatigue and all exertion must be avoided, and the mind kept perfectly tranquil.

SECT. VI. — FAINTING FITS.

FAINTING may occur at any period of pregnancy ; but is most frequent during the first three months, and especially about the time of quickening.

It may come on when the person is at perfect rest ; but it is ordinarily produced by more than usual exertion — exposure to heat — or any sudden excitement of the mind.

The paroxysm or fit is sometimes of short duration ; and the individual does not lose her recollection ; she has a knowledge of what is going on about her, and soon recovers ; but in other

instances the fainting fit is complete, and of long duration, continuing for an hour or upwards.

The treatment during a fit. — This consists in immediately placing the patient in the recumbent posture — the use of pungent volatiles — sprinkling the face with cold water — free exposure to air, and the cautious administration of cordials. And if the fit continue long, the extremities must be kept warm, and the friction of a warm hand be applied to the feet.

It is scarcely necessary to add, that those who are subject to these attacks ought to avoid fatigue — crowded or hot rooms — fasting too long, quick motion, and agitation of mind. The bowels must be strictly attended to; and a wine-glass of the infusion of calumba or cascarilla, taken every morning, will be useful in giving tone to the system.

After a few weeks the disposition to fainting will altogether subside.

SECT. VII. — PILES.

PREGNANT women are very subject to piles. Both with costiveness and diarrhoea they are a frequent attendant, but particularly with the former. They will usually disappear, if slight, as soon as the bowels are restored to healthy action; but they may not, and then will give rise to great suffering.

- They are sometimes occasioned in the early part of pregnancy by the pressure of the enlarged womb, and are cured spontaneously in such a case
- about the period of quickening, by the rising of the womb into the abdomen, which necessarily removes this pressure.

The pregnant woman recognises piles under two forms:—

1st, Where they exist as little tumours within or just without the bowel, becoming, very soon after their exclusion, more solid and firm; unless, indeed, they early break and bleed. And,

2dly, Where they present, without the bowel, a tumour, large in circumference, separable into lobes, altogether like a piece of sponge coloured, and bleeding occasionally from the surface.

Causes.—Of all the causes which operate in the production of piles, habitual constipation is the most frequent. The excrementitious matter is delayed in the bowel, becomes hard and knotty, and a source of great irritation; this irritation induces a determination of blood to the part, and the gradual dilatation of its vessels takes place as a consequence, which eventually forms the tumours known under the appellation of *piles*. Now, as in pregnancy there is a greater disposition to costiveness than at any other time, and as piles may be a consequence of this disordered function,

so this disease is much more prevalent during the pregnant state than at any other period ; another argument, and a very powerful one, why costiveness should be diligently guarded against.

Symptoms. — The symptoms of this complaint are well known. There will be weight, heat, and a sense of fulness about the lower bowel, a frequent desire both to relieve the bowels and bladder ; all of which symptoms are removed for a time if a discharge of blood takes place.

If the piles be without the bowel, they are constantly irritated by the friction of the parts in the ordinary motion and erect position of the body, and that to a painful degree during the period of the evacuation of the bowels. If exercise be taken in a carriage, the pain is much aggravated ; and if the irritation produce inflammation, the piles will become swollen, red, or purple, and excessively painful.

Treatment. — The treatment of this disease, when it occurs during pregnancy, is twofold — general and local. We must remove the *cause* by such means as excite a brisker action of the bowels ; and our choice of aperients must be directed to those which act efficiently but mildly, and without irritating the lower bowel itself. Next to small and repeated doses of castor oil — say a table-spoonful — the most desirable form of aperient that can be employed is the confection of senna (*i. e.* lenitive electuary), combined with

sulphur and magnesia. Of the following form, a dessert-spoonful or more should be taken, at first, twice daily ;—

Confection of senna, two ounces ;

Flowers of sulphur, one ounce ;

Carbonate of magnesia, two drachms and a half.

In conjunction with this medicine, much benefit may be derived by the injection of half a pint of warm gruel or cold water (whichever soothes most) as a lavement ; but it must be administered very cautiously, to avoid irritating the parts with the pipe of the instrument, which should be made of cautchouc, and not of hard bone or ivory.

It is important that medicine, in frequent use, should be so taken as to act upon the bowels in the evening only ; for if the bowels are acted upon in the morning, the patient, being obliged to move about all day, will suffer considerable distress and local irritation ; whereas, if the bowels are not evacuated till the evening, the horizontal position and the perfect rest of a long night, will obviate all inconvenience.

Great assistance may be afforded in the cure, and also in alleviating pain, by external applications to the tumours themselves. If, however, the piles are swollen and inflamed, and the pain experienced great, half a dozen leeches, or from half a dozen to a dozen, should be first applied in their immediate neighbourhood, the parts fo-

mented, and then warm bread and water poultices renewed every three hours.

These remedies will afford very considerable relief; and when the inflamed state is subdued, the following ointment must be employed to the tumours and around them, night and morning:—

Powdered galls, two drachms;
Camphor, half a drachm;
Lard, two ounces. — Mix.

Or,

Powdered black hellebore-root, one drachm;
Lard, one ounce. — Mix.

The latter preparation will, for some time after its application, give much pain, but proportionate relief will follow.

The *diet* must be sparing in quantity, mild in quality, and such as to leave, after its digestion, as little to pass through the bowels as possible.

I would beg attention to one more observation on this subject. The removal of piles by operation, during the pregnant state, is perhaps never justifiable. Let the patient, therefore, consult her medical attendant in time, and not, by a false delicacy, expose herself to an evil which it is her duty to endeavour to prevent.

SECT. VIII.—ENLARGEMENT OF THE VEINS OF THE LEGS.

THIS is a frequent, but not very troublesome

accompaniment, of the latter months of the pregnancy. It arises in some degree from the pressure of the womb upon the large venous trunks, impeding to a certain extent, the free flow of blood through them. It is frequently remarked in pregnant women who have passed a certain age; but it is particularly unusual for it to happen in the case of a young woman, even during a series of repeated pregnancies.

When first observed, *if the veins have not become knotty*,—that is, having little lumps or swellings in their course up the leg,—the only means which it is necessary to employ is the application of a calico bandage—six yards in length, and as wide as three fingers—from the sole of the foot up to the knee, and sufficiently firm to give support to the venous trunks. This bandage, well and equally applied to the limb, with a little aperient medicine twice a week, and the recumbent position for two or three hours in the middle of the day, will cure this form of the affection.

When after a time the *veins, more and more distended, have become lengthened, tortuous, coiled up, or knotty*, a sense of heaviness, numbness, and sometimes very acute wandering pain will begin to be experienced through the whole of the affected limb. And in a more advanced stage, in proportion as the knotty tumours increase, the limb becomes generally swollen.

This form of the disease calls for much care and

patience on the part of the sufferer. The legs should be strapped, from ankle to knee, with strips of adhesive plaster; and over this a calico bandage must be applied with a moderate degree of tightness, and kept wet with Goulard water. In conjunction with these local applications, it is sometimes wise to lose a few ounces of blood from the arm, and always necessary to take every other night a gentle aperient, to live upon a spare diet, and for some days to keep the horizontal posture. An elastic laced stocking, made for the purpose, may be afterwards worn, and will be found at once a sufficient support to the limb, and a source of great comfort to the wearer.

It will occasionally happen, and I have lately seen it even in young married women, that, connected with enlargement of the veins of one or other leg, there will also be a similar enlargement of the veins of *the external parts* of the corresponding side of the body. Appearing for the first time at an early period of the pregnancy, the enlargement increases as the months advance; so that just before confinement it will sometimes have acquired the size of a pear or orange. It becomes a source of great annoyance, as it almost incapacitates for walking, and is always much increased, for a time, by attempting to do so. It also causes great anxiety; for which, however, there is not the least occasion. When it increases much in size, the recumbent posture must be kept during

the greater part of the day; half a dozen leeches applied very near to the parts; and a gentle aperient taken occasionally, as great attention ought to be paid to the state of the bowels. The parts within being sometimes hot and irritable, they should be dressed night and morning with a piece of lint folded and spread on both sides with spermaceti ointment. These means will generally considerably diminish the swelling and remove uneasiness; but the swelling itself will remain during the remaining weeks of pregnancy. After delivery it will gradually subside, although it will never be entirely got rid of.

SECT. IX. — SWELLING OF THE FEET AND LEGS.

IN the course of pregnancy, during the latter months particularly, the feet and legs frequently become much enlarged. This is partly owing to the pressure of the womb, but sometimes apparently independent of it. It is first observed towards night, about the ankles; by degrees the swelling rises higher, and the legs may become of a very large size. The sufferer from this complaint always goes to bed with her legs much swollen; but towards morning the face swells, and the enlargement of the legs disappears to a

greater or less extent, returning, however, as the day advances.

Sometimes this disease is very trifling in its character; and in ordinary cases, except aperients, no medicine is necessary, and support may be given by a well-applied flannel roller: but when the swelling is extensive and permanent, remaining in the same degree after the patient has been for several hours in bed, and connected with uncomfortable sensations in the head, and an accelerated pulse, a medical man ought to be consulted; for the consequences might otherwise be dangerous.

SECT. X. — TOOTHACH.

THIS may appear a trifling disease to notice in connection with the subject before us; but, in the course of pregnancy, women will sometimes suffer severely from erratic pains in the face and teeth. As these pains are generally induced by the increased irritability of the nervous system, the result of the new action which is going on in the womb, and not from the decay of any particular tooth, extraction of any tooth for its cure is out of the question. Indeed, did the suffering arise from a carious tooth its removal is unadvisable, inasmuch as this operation has been immediately followed by a miscarriage. The fact is, that the patients who have consulted me while

suffering from this affection have had, apparently, in most cases, very sound teeth ; and, feeling confident that its cause has been what has been before pointed out, the treatment has been purely constitutional. The following pill may be taken, night and morning, for three or four days : —

Socotrine aloes, one grain and a half ;
Blue pill, two grains ;

together with one drachm of the rust or carbonate of iron, mixed with treacle or milk. The latter must be repeated twice a day for four days, and then a third dose may be added in the middle of the day ; and the remedy continued, even after all uneasiness in the face has subsided for some time, with great advantage to the general health.

The only local application I would advise is that of washing out the mouth and teeth, night and morning, with a tumbler of lukewarm water, containing a tea spoonful of common salt. This plan of treatment not only relieves the painful affection of the face and teeth, but allays also that local irritability of the nerves upon which it depended.

If a carious tooth seems alone affected, it has been proposed carefully to apply a drop or two of nitric acid, which is said to be infallible.

SECT. XI. — SALIVATION.

A PREGNANT woman must not be surprised, if, some little time after conception, or during any of the months of gestation, the ordinary quantity of saliva, which lubricates and keeps the mouth constantly moist, should increase to such an extent as to be exceedingly troublesome, and, indeed, sometimes become so excessive, as seriously to affect her health. It is a symptom of pregnancy, but a very unusual one; although the quantity of saliva discharged has now and then exceeded three, and even four pints daily.

It differs essentially from the salivation produced by the exhibition of mercury, inasmuch as in this case there is no tenderness of the gums, or disagreeable factor in the breath. The fluid itself is either perfectly colourless and transparent, or tenacious and frothy. It has an unpleasant taste, and, when tenacious, induces vomiting. It is generally accompanied with acidity; and the plan of *treatment* most advisable, when the disease is moderate in its character, is the frequent use of from 20 to 30 grains of magnesia, say every morning, rinsing the mouth out very often with lime-water, and to resist the desire to discharge the saliva from the mouth as much as possible; for, if it is not very great in quantity, it may be swallowed with advantage. Should this symptom,

however, be very excessive, the health will suffer considerably in consequence, and the assistance of the medical man is imperatively called for.

As this affection is of very rare occurrence as a symptom of pregnancy, I insert the following case; it will serve as a good illustration, and at the same time afford encouragement and confidence to any that may be similarly affected. It occurred in the practice of my friend Mr. Hooper, of Newington, in whose words I quote it:—

“ A respectable married lady about thirty-two years of age, of a pale and sallow complexion, and nervous temperament, has been the subject of salivation in *three* pregnancies out of four. In two instances this symptom appeared as the first indication of her situation; and in all three it continued through the whole of the remaining period of gestation. The average quantity of saliva discharged was about a pint daily; it was not attended by any foetor, but with some irritability about the glands of the throat and fauces.

“ Twice out of the three pregnancies this symptom disappeared directly after delivery (say forty-eight hours); but the time before last it remained about two weeks. It was mostly suspended during the latter part of each labour, when the pains were frequent and severe.

“ The general health did not suffer.”

SECT. XII.—A PAINFUL AND DISTENDED CONDITION OF THE BREASTS.

PAIN and tension of the breasts frequently attend, as also they are natural consequences of, conception.

In a first pregnancy, a large and rapid development of this organ may take place, the breasts becoming two or three times as large as before marriage; but if tight lacing be only avoided, and the breasts be permitted to expand, no material inconvenience will arise from this circumstance.

As, however, these symptoms are sometimes attended with considerable distress, I would advise, under such circumstances, the application of half a dozen leeches; tepid fomentations; and a gentle aperient, viz. two drachms of Epsom salts in a little peppermint-water, night and morning. These means, by relieving the over-distension and fulness of the vessels of the part, remove the cause and complaint at once.

If these symptoms occur to an individual who may have been several times pregnant, and formerly has had an abscess in one or other breast, that bosom is generally most painful which was before affected, and there will be an increased hardness about it, which may give rise, perhaps, to the apprehension of an abscess again forming,

or, what is much worse, to the disease terminating in cancer. Both these fears are groundless; and if she will only use fomentations, gentle friction frequently during the day with almond oil and laudanum—about a drachm of the latter to an ounce of the oil, warm,—and exercise patience, every thing will do very well.

Nature often seeks her own cure, and a colourless thin fluid runs from the nipple, which relieves the symptoms.

SECT. XIII.—CRAMP AND PAINS IN THE LEGS, ETC.

SOME women, during the latter months of pregnancy, suffer dreadfully from cramp and pain in the legs, and about the sides and lower part of the stomach. This symptom arises from the pressure of the womb upon certain nerves in its neighbourhood, which proceed to the extremities.

If the cramp be seated in the muscles of the legs, a hard knotty induration is perceivable to the touch, accompanied with great soreness, the latter continuing for a long time after the lump has disappeared. An uneasy position of the muscles is a sufficient cause of irritation to produce it; and it is frequently removed by simply rising from the bed or sofa, and walking about the room, so as to put the muscles of the leg into action. If this does not succeed, warm friction

with the naked hand, or with camphorated oil, generally will.

If spasm affect the sides, or lower part of the stomach, the speediest relief will be obtained from twenty to five-and-twenty or thirty drops of laudanum, with a little ether, in distilled peppermint-water, or, even at the moment, a little brandy and water; but I generally order for patients who are at all subject to this affection the following draught:—

Batley's sedative solution of opium, fifteen drops;
Compound tincture of lavender, one drachm;
Distilled peppermint-water, one ounce and a half.

To be taken before retiring to rest, if there is the slightest intimation of an approaching attack; I also direct that the feet be put into a mustard foot-bath. During the attack great benefit will be derived from the external application of hot flannels, moistened with the compound camphor liniment.

SECT. XIV.—VIOLENT MOVEMENTS OF THE CHILD.

BEFORE the third month of pregnancy, the child is not sufficiently developed to enable it to move. When a little further advanced in growth, it moves; but so feebly and imperfectly, that the

mother is not yet sensible of it. A period, however, soon arrives when its movements, although at first like the mere fluttering of a bird, acquire a power and force that enable it to give decided proof of life. It is instantly recognized; the woman knows she has quickened, and perhaps the sensation experienced is so sudden that she faints. After this time the motions of the child increase both in frequency and degree, and are readily perceived by the mother; but after a time the womb, accustomed to this action within itself, is less sensible of its effects, and, except as a satisfactory evidence of the life of the child, is little regarded.

Sometimes, however, the child is *disagreeably active*,—so violent as not merely to alarm the mother, but occasion much sickness and uneasiness, sleepless nights, and feverish symptoms; and all this to such an extent as to require medical interference. If this is not thought necessary, relief will be obtained from losing blood, when not otherwise objectionable, to the amount of a few ounces; from gentle aperients, and a night draught, containing from 20 to 25 drops of Batley's sedative solution of opium. These remedies will afford the greatest relief; and if the symptoms are not altogether removed by them, the female must then endure patiently, recollecting they are a proof that the child is alive and vigorous.

SECT. XV. — SORENESS AND CRACKING OF
THE SKIN OF THE ABDOMEN.

It will sometimes happen during the latter months of pregnancy, that the skin covering the abdomen will not yield readily. This produces much uneasiness; the skin becomes tender and fretted, and, if there is very great distension, cracks. It forms a source of great discomfort, and renders the sufferer miserable whenever she moves.

It is to be relieved by fomenting the parts with a decoction of poppy-heads*; and the frequent use of warm almond oil, applying in the intervals spermaceti ointment, spread very thinly on a piece of soft linen.

SECT. XVI. — INCONVENIENCE FROM SIZE.

MANY women in the latter months of gestation experience considerable annoyance, and sometimes severe suffering, from the great size of the abdomen, and from want of support, when even not so very large. This is a rare occurrence in a first pregnancy, owing to the firmness of the abdominal

* This decoction is made by taking four ounces of poppy-heads, breaking them up, putting them into a vessel, pouring upon them four pints of boiling water, boiling the whole for fifteen minutes, and then straining off the liquor.

muscles, but very frequent in subsequent ones. Little women especially suffer from this unpleasant cause; and, in fact, it is so universally the case with all who have borne children *rapidly*, that it is highly important for a female to be provided with the means of relieving it.

There is but one remedy with which I am acquainted, but have usually found it answer every purpose. It is wearing during the day-time a *well-applied belt* next the skin. It must be sufficiently broad for its upper edge to surround the abdomen above the point of its greatest diameter, and its lower edge to come down to, and be supported by, the hips. It must be drawn tight by a lace-string behind, as circumstances may require; and it must likewise be supported by broad straps passing over the shoulders. This will give the required support to the womb; and when the patient is in an upright position, as much as possible of the weight of what she externally carries will be thrown upon, or hang from, her shoulders.

I have ordered, for the last year or two, a belt made without shoulder-straps. It is more simple, therefore, in its construction than the one just alluded to, and at the same time answers admirably. It can be put on by the patient very quickly, and without assistance; and the degree of support required from day to day can be regu-

lated with ease and accuracy. It must, however, be made with care, in order to fit well.

Those who suffer much from this cause ought also to lie down upon a couch or bed for two or three hours every day, — this will give great relief to the muscles ; and after their confinement a belt should be worn for some weeks.

SECT. XVII. — BEING UNWELL DURING PREGNANCY.

A WOMAN may be pregnant, and yet be unwell for one period or more whilst in that condition. Indeed it may take place every month to the time of quickening, and has even continued in some rare cases up to the time of delivery.

Now, although this can scarcely be called one of the diseases of pregnancy — for it, ordinarily, in no way interferes with the health — still, as while the discharge is actually present it predisposes to miscarriage, it is necessary to give one or two hints of caution.

Any one, then, thus circumstanced, should manage herself with great care immediately before the appearance, during the existence, and directly after the cessation of the discharge. She should observe the most perfect quiet of body and mind — keeping upon the sofa while it lasts, and carefully abstaining from any stimulating or indigest-

ible article of food ; and if any symptoms of pain, uneasiness, or such as threaten miscarriage come on, immediately seek medical advice.

A case, showing the necessity of carefulness under such circumstances, occurred to me some time since, and its relation is all that I need add upon this point.

A lady, resident in Gloucestershire, missed one period : suspected herself to be pregnant ; but being unwell on the following month, supposed herself mistaken. She had occasion, however, to come to London on the second day of her being unwell — Monday. On the Wednesday following she suffered considerable uneasiness from the exertion attendant upon the journey ; and on Friday, whilst from her hotel, was obliged to return home in haste, and before night miscarried.

Here then is a case in point — first proving, what some persons deny, that a woman may be unwell and yet be pregnant ; for she could not perceive the slightest difference in the appearance of the discharge from what ordinarily took place, and it was exact as to the time of its return — and, next, showing how necessary is great caution, and the most perfect quiet, since undoubtedly this lady would not have miscarried, if her journey had only been delayed another week.

SECT. XVIII.—AFFECTIONS OF THE BLADDER.

THE bladder is often affected by pregnancy. In the *early* months it may, like the intestines, become more torpid than formerly, or, on the other hand, unusually irritable. In the *latter* months there may be an inability to retain the urine.

1. *Torpidity of the bladder.* — In this case the water is long retained, and then expelled with some difficulty, and in considerable quantity at a time. This state requires great attention on the part of the sufferer; for if it occur about the third or fourth month, serious consequences might attend its neglect — miscarriage, for instance.

There is not much to be done by medicines; the relief that is to be obtained from soda and similar remedies is very partial. But all that is required for its relief is the *regular effort* of the individual to pass her water. She must never allow the bladder to become distended, and therefore never permit six hours to elapse without attempting to relieve herself. If she fail to do this, and an inability to pass water arises, the medical attendant must without delay be called in.

2. *Irritability of the bladder.* — More frequently the bladder is rendered unusually irritable, and uneasiness in the region of the bladder itself is felt.

This state requires a very different treatment from the former; for here soda and all saline medicines, which would render the urine stimulating, must be strictly avoided. Small doses of castor oil, so as to keep the bowels gently relaxed; three or four grains of the extract of henbane, twice a day for four or five days; and drinking freely of mucilaginous fluids, (barley-water, &c.) will give decided relief.

3. *Inability to retain the urine.* — This is not at all an uncommon circumstance in the last two or three months of pregnancy. It is produced by the pressure of the womb on the bladder, by which the urine is forced off involuntarily whenever the party coughs, or moves quickly; or, if she be not troubled to this degree, she will be unable to retain much of it, being obliged to void it frequently.

It is to be relieved by the recumbent posture — by wearing, during the daytime, a well-applied belt to the abdomen*, which will give support to the womb, and prevent, in some measure, the pressure upon the bladder; but it is only to be permanently cured by delivery.

SECT. XIX. — IRRITATION OF THE EXTERNAL PARTS.

A WOMAN is naturally loth to consult her medical attendant when labouring under this

* See section xvi. of this chapter, p. 110.

affection. Delicacy causes her to shrink from making any communication to another about it; and she will endure the physical distress to which it gives rise for days and weeks, rather than do violence to her feelings. But this troublesome and distressing complaint, unless some remedy is early had recourse to, always grows worse and worse; and as at its commencement it admits of speedy and permanent relief, I think it right to point out in what this consists.

This tender and irritable state may affect the external parts only, or it may extend within. In either case it will produce the most intolerable itching, especially during the night, when it is sometimes hardly bearable.

It now and then commences in the early part of pregnancy; and when this happens, and it is neglected, it may continue until delivery takes place. At other times, and this I believe to be the most common, it does not attack the female until the sixth or seventh month.

If it is only slight, it may be quickly removed with the following lotion: —

Goulard's extract, one drachm and a half;
Distilled water, one pint.

With this the parts should be washed four or five times a day; and, at the same time, from half a pint to a pint of the same lotion must

be thrown up into the vagina by means of a proper syringe.* These means, together with a little laxative medicine, will produce speedy and perfect cure.

If, however, the irritation is very great, and extends within the vagina,—if the disease has existed some time,—and if nothing has been hitherto done for its relief, some additional means must be had recourse to. A dozen leeches must first be applied to one of the groins, or as near the external parts as possible; and when they drop off, the bleeding must be encouraged by using a sponge and warm water. This will unload the distended vessels of the vagina, upon which the disease principally depends.

Next, the parts just within should be thoroughly cleansed with warm water, and then smeared over with the Goulard's extract; and this must be repeated morning and night, the external parts being washed freely four or five times a day with the Goulard lotion already prescribed for the milder form of this complaint. Or, if this fail to give relief, a strong solution of borax must be had recourse to:—

Sub-borate of soda, four drachms;
Distilled water, sixteen ounces.

These measures, with the exhibition of a gentle laxative night and morning—

* See note, p. 119.

Sulphate of magnesia, two drachms :

Infusion of roses, one ounce ;

Simple syrup, one drachm ;

and the recumbent posture (which is indispensable), will remove this troublesome affection.

If the itching is intolerable at any time, iced-water, or a bladder containing broken pieces of ice, will afford a temporary suspension of the fit ; and it may be necessary to repeat the application of the leeches, if the disease is very obstinate.

If in any case, after the irritation has nearly subsided, there be present considerable heat, redness, and swelling of the external parts, great benefit will be derived from bathing them liberally three or four times a day with a strong decoction of poppy-heads * (to be used warm), and then applying a bread and water poultice.

The diet throughout must be moderate, with a total abstinence from stimulants of every kind.

SECT. XX. — A WEAKNESS, OR THE WHITES.

A DISCHARGE sometimes accompanies pregnancy, occurring, however, most frequently to those who are bearing children in quick succession.

In the early months.—If the discharge is but small in quantity, it will be only necessary to use

* See note, p. 110.

the bidet with cold water, liberally, night and morning, and to sponge the whole body every morning.

If, however, it is present to such an extent as to render the woman uncomfortable, even from taking a gentle walk, it will be necessary to throw up into the vagina with a syringe * a pint of cold water three or four times a day ; to observe

* The female syringes in common use are highly objectionable ; they are too small, and produce considerable irritation from the frequent necessity of withdrawing the pipe for the purpose of refilling the instrument. This inconvenience is obviated by the use of the common domestic enema syringe, and fixing to it a proper *vaginal pipe*. In this way, any quantity of fluid may be injected into the vagina without withdrawing the tube.

The *Enema Bidet* of William Smee and Son, 6. Finsbury Pavement, is particularly applicable in these cases. It is a modern invention, but safe, simple, and most efficient. It consists of a syringe fixed to a common bidet pan, to which are attached flexible tubes for the injection of water or other fluids, and so simply arranged, as to be used with the greatest facility by any individual without the slightest assistance.

Whenever it is important that the fluid injected should *remain* any time in the vagina, then the operation must be performed in a recumbent posture, with the hips raised by a pillow, that the fluid may be less likely to escape. The patient, in this position, however, will not be able to use the contrivance just referred to ; but she may, with great ease, employ an instrument of the following description, which I have had made for this express purpose. It consists of a gum elastic bottle, holding ten or twelve ounces, with a gum elastic pipe fixed into it, half an inch in diameter, and about three or four inches in length, rounded at its extremity, and pierced with several holes. Where this is fixed to the bottle is an oval-shaped ivory shield, to which is attached a soft piece of sponge ; the object of which is not only to prevent the introduction of the instrument too far, but chiefly to assist in retaining the fluid injected.

I believe that the reason frequently, why "a weakness," sometimes continues so obstinate and unmanageable, arises simply from the inefficient mode in which the local remedies are applied ; the medicated injections prescribed are never injected in sufficient quantity, or retained sufficiently long.

the recumbent posture for at least three or four hours in the middle of the day; and to keep the bowels open with some mild aperient (a drachm or two drachms of Epsom salts); and every morning to use the shower bath. This condition will now and then be accompanied with a feeling of bearing down, as if every thing would drop through; symptoms which will receive appropriate treatment by the adoption of the above plan (more particularly the recumbent posture), and, if not entirely relieved, will be found to disappear altogether between the fourth and fifth month.

If the discharge is in excess, no scruples of delicacy should prevent medical advice being sought; for if it is not attended to, most probably miscarriage will result.

In the latter months.—Coming on in the latter months for the first time, provided it is not profuse, it is useful; for there will generally be symptoms of weight, heat, and discomfort present, which are alleviated by the discharge.

If, however, it is excessive, the frequent use of the bidet, and injections of tepid water into the vagina, will be productive of great comfort. The bowels should be kept constantly open by mild aperient medicines. And the recumbent position, by diminishing the pressure of the womb upon the parts from which the discharge proceeds, will tend

greatly to reduce the quantity. Should these means fail to diminish the amount of discharge, the Goulard injection may be thrown up into the vagina with great relief, night and morning: — Goulard's extract, one drachm and a half; distilled water, one pint.

I think it right to observe, that when this discharge *continues in considerable quantity during the whole period* of pregnancy, it predisposes to premature delivery. Again and again have I known the same individual prematurely confined from this cause alone; — her hopes thus repeatedly blighted; and, what is worse, her health unstrung for a long period.

In such women, the discharge exists more or less abundant when they are not pregnant; the menstrual secretion being more plentiful than it ought to be, and the intervals between the periods generally shorter than natural. Such women are generally weak, although they may have the appearance of strength; they can take very little exercise without fatigue; and their habits, although perhaps originally sedentary by choice, after a while become so from necessity. The symptoms, disregarded for months, nay, years, by the sufferer, increase; and now she has pains in the head, giddiness, and perhaps, indistinct vision, and many other symptoms which it is unnecessary to mention. At last the urgency of the symptoms leads her to seek for pro-

fessional assistance. How much wiser, if the advice of the medical attendant had been sought at an early stage of the complaint, when the inconvenience was slight and easily manageable; for in proportion to the duration of the disease will be the difficulty in removing it.

SECT. XXI. PAIN IN THE SIDE.

THIS affection comes on towards the latter period of pregnancy, never being felt in the earlier months. It is exceedingly troublesome; and it too frequently happens that the remedies given for its relief, although varied enough, produce no good effect.

The pain at first is slight. The individual suffers little in the morning, but a few hours after dinner the pain becomes more violent; she is obliged to lie upon a sofa, and is frequently observed to place her hand over the part in pain, and press it pretty forcibly. Cough does not necessarily accompany this complaint; it is not unfrequently present, but it is then unconnected with inflammatory action in the chest.

Women are much in the habit of resorting to bleeding for this affection: but never, as far as I have observed, with the slightest advantage. Depending, as it does, on an irritable condition of the liver, nothing relieves it so speedily as those cathartic medicines which act on this organ.

Take at first, then, two pills composed of four grains of calomel, six of the compound extract of colocynth, and two of the extract of henbane ; after which keep the bowels relaxed with three grains of blue pill, and three grains of the purified extract of aloes, taken every night : the diet being carefully attended to : no animal food or stimulants to be taken for some days.

The medicines will bring away black and offensive stools, and must be continued until these secretions are perfectly healthy in their appearance. This object gained, the pain in the side will have subsided ; and all that is then necessary, is carefully to watch over the state of the bowels for the future.

· SECT. XXII. HEADACH.

HEADACH during the latter months of pregnancy ought never to be trifled with ; for although it will most frequently arise from a disordered stomach, and is then easily removed, it is now and then the effect of a cause much more important.

Headach from disordered stomach. This will generally depend, either on a costive state of the bowels, indigestion, or nervous irritation : is attended with acid eructations, occasional giddiness or slight sickness, foul tongue, and perhaps paleness of the countenance, the attacks being fre-

quently periodical, and confined to one side of the head.

This kind of headach is to be relieved by taking a mild aperient every other night, until the bowels are fully relieved and the tongue clean, — rest, — abstaining from animal food for a few days, and from all stimulants (wine, beer, &c.) for the remaining period of pregnancy. During the attack itself, ether, or eau de Cologne, may be applied to the head.

Headach from fulness of its vessels. This is an important disease when severe and constant, and more particularly if the patient is far advanced in her pregnancy. It is to be recognised by a dull appearance and suffused condition of the eye; by the presence of giddiness, especially upon stooping or lying down; and by a sense of heaviness or weight over the eyes, or in the head. Its presence is still more strongly marked, if there is singing in the ears, fiery objects before the eyes, and indistinctness of vision. The seat of the pain is generally in the back of the head, and is usually accompanied by a fixed pain in some part of the spinal column.

This form of headach is *very rare*; but if the foregoing symptoms manifest themselves, as they indicate the approach of an attack of an alarming character, *which may be prevented* (and it is therefore here alluded to), timely recourse should be

had to the medical attendant. Blood-letting and purgatives are always necessary.

SECT. XXIII. JAUNDICE, ETC.

JAUNDICE sometimes occurs in the early or latter months of pregnancy: now and then a troublesome cough, accompanied with considerable pain in the head, and sudden attacks of difficulty of breathing. These and many other slight affections may manifest themselves during gestation; but of these I say nothing: it would be advancing beyond the bounds by which I thought it right to limit myself, and departing from the object proposed.

I have finished what was purposed, and presented the married woman with that information for direction and relief in those little ailments and discomforts which frequently arise during pregnancy, for which she does not think it necessary to consult her medical adviser, and yet from which she will very often go on suffering for weeks rather than speak of them.

CHAPTER IV.

ON THE PREVENTION OF MISCARRIAGE.

THERE is no accident befalling female health which forms a greater source of dread, anxiety, and subsequent regret to an experienced married woman, than miscarriage. When this becomes a habit, there is no circumstance the consequences of which are productive of more serious injury to the constitution, blasting the fairest promises of health, and oft-times laying the first seeds of fatal disease.

The frequency of its occurrence, however, would excite little surprise, were the delicacy of attachment which exists in the early months of pregnancy between the future offspring and its parent only understood; for it would then be easily perceived with what facility this union may be destroyed.

If, then, this accident is so frequent — if its consequences are so serious when the habit of miscarriage is established, — and if the facility with which it may happen is so great from the slight connection which exists between parent and offspring at this early period, it will be asked are there any means by the adoption of which an event so sad in its results may be prevented?

Can the female herself contribute in any measure to avert her liability to it? Or can any plan be pointed out, the rules of which, when strictly observed, shall eventually remove this tendency when it has grown into a "habit," and reward the female by carrying her securely and safely through to the termination of gestation, when next she shall become pregnant? In the majority of cases, and without hesitation, I confidently reply in the affirmative; and it is because the success of such a plan depends for the most part upon the prudence and perseverance of the patient in carrying it to a happy result — for a medical man can do little to arrest a miscarriage when the process is once set up — that she ought to be fully acquainted with the means of prevention.

There is another fact, also, which I am sure will have considerable weight with any well-regulated mind; and that is, that the subject is of the highest importance to the party chiefly interested, not only as respects her own health, but also that of her offspring, whose condition from the first is dependent upon that of the mother: a disregard, therefore, to her own health may destroy the very life of her child.

SECT. I. — THE PERIOD AT WHICH IT MOST FREQUENTLY OCCURS.

THE usual term of pregnancy is forty weeks, or two hundred and eighty days. At any time,

however, within this period, the child may be expelled; and if this take place before the commencement of the seventh month, it is usually called a miscarriage. The process of gestation may be checked from its earliest period; for many of the causes producing miscarriage which can operate afterwards, may operate through the entire term, and hence miscarriage occurs not unfrequently within three weeks after conception; it most frequently, however, takes place between the eighth and twelfth week.

SECT. II. — ITS SYMPTOMS, ETC.

WITH regard to the nature of this process, and the mode by which it is effected, we have in this place little to do. In warning the female of its probable approach I have only to mention certain local appearances, and other general and constitutional symptoms, which indicate its commencement.

Thus, if during pregnancy a woman experience an unusual depression of strength and spirits, without any apparent cause,—if this is accompanied with attacks of faintness, pains going and coming about the lower part of the stomach, loins, and hips,—*she threatens to miscarry.*

If these symptoms are after a time followed by the discharge of more or less blood, *a partial sepa-*

ration of the child has already taken place. If the pains in the loins and hips increase, becoming sharper and more expulsive,—bearing down—with a free discharge of clotting bright-coloured blood, *the child is altogether separated*. And, in fine, if the blighted and dead child is not quickly expelled, thus terminating the whole process, this will be the case before many days elapse; preceded, however, in such a case, by the breasts becoming flaccid, the stomach and bowels more or less disordered, and the discharge altered in appearance and offensive in character.

Here, then, the presence of the discharge, the quantity poured forth, and the subsequent alteration in its colour, are, as will be afterwards pointed out, signs of considerable importance in marking the progress of miscarriage.

SECT. III. — THE CAUSES.

THE causes of miscarriage are numerous: they are either of an accidental or constitutional kind. The most important of these are the following:—

ACCIDENT, may give rise to it. The delicacy of attachment between the offspring and parent, and the facility with which this union may be destroyed, have already been alluded to. If, then a sudden shock by a fall, or a blow on the stomach, occur to a woman while pregnant, she can

readily perceive how miscarriage may take place as a consequence.

VIOLENT EXERCISE OR EXERTION is a very frequent cause. Immoderate exercise in dancing, riding, or even walking; lifting heavy weights; the fatiguing dissipations of fashionable life, — all or any of these will sometimes produce so much disturbance of the nervous and vascular systems as seriously to affect the well-doing of the child, and frequently produce miscarriage.

VIOLENT PURGATIVES, EMETICS, etc., may produce miscarriage. It is well known that drastic purgative medicines, by their cathartic influence upon the lower bowel, now and then cause miscarriage; and that the violent action upon the stomach of powerful emetics may produce a like effect. Both, therefore, should be carefully avoided during pregnancy.

This leads me to observe, that strong purgative medicines, used with a view to promote miscarriage, are necessarily taken in such quantities as generally to produce inflammation of the stomach and bowels; and, if abortion is thus intentionally and wilfully effected, not unfrequently at a sacrifice which is never calculated upon — the death of the mother! It cannot be too generally known that savine, rue, iron filings, squills, black hellebore, and preparations of the spanish fly, all

of which have acquired considerable popular repute as substances capable of producing abortion, have no such influence directly upon the uterus; that they rarely affect the uterus at all; and that when this is the result and abortion is obtained, it is generally at the expense of the life of the mother.

VIOLENT MENTAL EMOTIONS are capable of disturbing the organs of the body, and so producing miscarriage. It is notorious that our physical condition is affected by the state of the mind. In the peculiarly sensitive condition of the pregnant woman, any extraordinary excitement, or depression, especially when produced suddenly, may therefore give rise to the evil of which I am speaking.

THE FORCE OF HABIT on the part of the womb to expel the child at a certain period of pregnancy is the *most frequent* cause of miscarriage. What I mean is this: miscarriage having once occurred, from accident or any other cause, there is a tendency to its repetition. A woman goes on in a very promising way to a certain time, and then miscarries, and again and again this occurs. Thus "a habit" is induced on the part of the constitution of the individual to the production of this accident; and then also slighter

causes, applied at the period when miscarriage formerly happened, will be sufficient to induce it than would be required at another time.

DELICACY OF CONSTITUTION, connected with habits of indulgence, may give rise to a state of health producing miscarriage. In high and fashionable life, among those who use little exercise, live luxuriously, and sleep in soft warm beds, there is often a weak condition of the vessels produced which convey the blood from the parent for the nourishment of the child; and the increased impetus and force given to the circulating fluid, induced by these habits, detaches one or more of these vessels, so that the supply necessary for the growth of the child is cut off,—and it withers, dies, and is expelled.

IN A NATURALLY ROBUST AND VIGOROUS CONSTITUTION, the same effect may be produced. Miscarriage may arise from a rupture of the vessels of communication between parent and offspring; but then it is under different circumstances. An increased quantity of blood is made, more than is compatible with health; it is propelled, as a consequence, with unnatural power, through the vessels of the body,—the vessels of the womb participate in the irresistible vehemence of this action; and if they do not suddenly give way, a sensation of weight and tension is experi-

enced about these parts, with shooting pains about the loins, hips, and in the neighbourhood, which, if not relieved, rupture of the vessels quickly takes place, and miscarriage follows.

Lastly, a peculiar excitable state of constitution; continuing to be unwell during pregnancy; advancement in life before marriage; piles, in an inflamed state; as also severe and large loss of blood, from their rupture; — these, and some other causes, may give rise to this accident.

SECT. IV. — THE MEANS TO BE ADOPTED FOR ITS PREVENTION.

HAVING thus briefly reviewed the principal causes which may excite miscarriage, we proceed to consider the means to be adopted for its prevention. I shall divide this subject into two distinct parts: —

- I. The plan to be followed for preventing miscarriage by those who are subject to it; and,
- II. The means which are to be used to put a stop to miscarriage, when it is occasionally threatened.

I. *The plan to be followed for preventing miscarriage by those who are subject to it.*

This plan has reference to two distinct periods : *before* the woman becomes again pregnant, and *after* she conceives. And I may illustrate the subject in two kinds of constitution, widely differing from each other, and requiring, in part, rules and directions directly opposite : —

1. The plan to be adopted by a woman of delicate and feeble health and spare habit.

Before she again becomes pregnant, her object ought to be to invigorate her general health. This is to be accomplished first, by attention to the stomach and bowels. The latter may be comfortably regulated by taking a wine glass of the *beaume de vie* at night, the last thing, twice a week, or oftener if necessary, the object being to induce a full and consistent evacuation daily. This medicine unites a cordial with its aperient qualities, and therefore strengthens the bowels, at the same time that it keeps them unloaded and free. But although it may be continued for a considerable time, and with benefit, it is better, as the bowels again acquire tone from the improvement in the general health, to discontinue its use, and have recourse to the lavement in the morning before leaving the dressing-room. I have known many instances where much harm accrued from the long-continued use of purgative medicines ;

and although the exhibition of the one just advised will be found exceedingly necessary, and beneficial in its influence for some weeks, I would much rather, after a time, do without purgatives at all, and simply use the warm water or thin gruel injection (a little less than a pint in quantity) every third or fourth morning, as may be found needful.

In conjunction with the aperient, if there is much debility of stomach manifested by little or no appetite and uneasiness and sense of weight after taking a meal, great benefit will arise from taking, three times a day, a pill consisting of sulphate of iron, one grain and a half; sulphate of quinine, one grain; extract of gentian, two grains. This will not only strengthen the stomach and increase its digestive power, but, at the same time, sharpen the appetite. It may be pursued for some weeks, and then only continued once a day, about an hour before dinner.

The *diet* must be small in quantity at first, but nutritious in quality: mild animal food, as boiled chicken, game, mutton, and beef; these must be well masticated, and therefore eaten slowly. The meat of young animals, as veal and lamb, must be avoided, as also pork. Fish should be seldom taken, as it leaves a large quantity of excrementitious matter in the bowels. Mealy potatoes, or well-boiled rice, stale bread, or captain's biscuit, should be the only solid taken with one kind of

animal food, as the dinner meal; towards the conclusion of which a glass of port wine, thrown into half a tumbler of hot water, with sugar and nutmeg, is the best kind of beverage. Coffee with brown sugar, and brown bread not toasted, and a new-laid egg, are best adapted for breakfast; and coffee, in preference to tea, in the evening.

Animal food may be taken twice a day, when the stomach has acquired sufficient power to digest it: but in moderate quantities, and certainly never at night. The wine, too, may be increased to two glasses, but then without water. Port wine is most suitable, and it should never be taken until the conclusion of the meal.

Lying on a couch after dinner, to induce sleep, does not at all assist digestion. Rest for a couple of hours is certainly necessary; but the time should be employed in conversation, or light reading, rather than the frequently unrefreshing after-dinner doze. The patient must rise and retire to rest early; she must lie on a hair mattress, and there must be no further drapery about the bed than curtains at its head. The chamber ought to be large and airy.

She must at once use the *shower bath*, and at first the temperate salt-water shower bath, for a week or ten days. The temperature of the water must not exceed 85°, and not be lower than 75°; and so gradually reduced until the shock of the cold shower bath can be borne. It must be used

every morning, immediately upon getting out of bed—provided there is no perspiration present at the time—while the surface of the body retains the warmth of the bed. This insures reaction, or the well-known delightful glow, which will be proportioned, in a feeble and delicate woman, to the warmth of the skin and extremities previous to receiving the fall of the shower. Warm water should previously be put into the bottom of the bath, so that the ankles are covered; this will tend, in some degree, to lessen the shock, and, at the same time, to increase the reaction. Upon coming out of the bath, the surface of the body must be rapidly dried, by a servant, with coarse towels, or flannels, and as rough as they can be well borne, as the friction thus produced is exceedingly useful.

If the patient is residing on the coast in the summer, she may bathe. It will be well, however, for her to commence with the tepid shower bath. After this has been employed for ten days or a fortnight, she may bathe in the sea; and the best time in the day is two or three hours after breakfast, exercise being taken previously, but not to an extent to cause fatigue or perspiration. The patient ought to plunge in or be dipped suddenly; one or two dips at first, and, after a time, the stay may be prolonged from five to ten minutes, and the body must be speedily dried.

A very nervous and delicate woman, who can-

not bear, from apprehension, the shock of plunging into the sea, or that produced by the shower bath, will derive great benefit from daily having the body rapidly sponged with cold salt water, and quickly rubbed dry with rough flannel; the more friction employed here the better, because the greater will be the subsequent warmth produced. This method is not adopted by many, from fear of taking cold; but if it is effected quickly, I have no hesitation in saying it is the best *preventive*, and diminishes the susceptibility to the impressions of cold. During the winter, the head and chest should alone be sponged; and, during the period of being "unwell," the cold bath is inadmissible.

It is not only necessary, however, to attend strictly to diet, and to the other means pointed out; the patient must also adopt a regular system of exercise, proportioned to her strength. She should commence by taking gentle exercise on foot, or in an open carriage, between breakfast and dinner. As her strength increases, she may extend the walk or drive, or take horse exercise; never forgetting that it should always precede a meal, and never follow it; that the amount of it should always be far short of fatigue;—in a word, that she should always feel refreshed and invigorated by it.

A change of air is often very desirable, and affords one of the most powerful means of improving the general health. In midsummer, autumn,

and during the winter, a residence on the coast is best for such a patient ; but in the spring and early part of the summer, inland is to be preferred.

And the last direction which has to be given here, and the observance of which is of great importance to those who have been the subjects of *habitual* miscarriage, is this, — that the chance of pregnancy again occurring until three months have elapsed from the last accident must be strictly avoided.

By such a plan of proceeding I feel confident the general health will be restored ; the individual will no longer have a capricious appetite, foul tongue, disordered stomach and bowels—sometimes sluggish, sometimes relaxed ; she will no longer rise in the morning unrefreshed by sleep, and retire to rest at night fatigued with the slightest exertion of the day : her flesh, which by slow but progressive steps she was losing, and had become flabby, and apparently bloodless, will now return, hard and firm, and possessing the blush of health and strength ;—she will have found out how to obtain health ; and she will, if I mistake not, be careful to preserve it.

After the patient becomes pregnant, let every cause which might excite miscarriage be avoided. The principal causes have been pointed out. The patient must sleep alone — this is absolutely and imperatively necessary ; she must be more careful and attentive than ever to her diet, and the regu-

lation of the bowels; and, above all, guard against costiveness. Let the shower bath be still continued, and gentle exercise; but carefully avoid any fatigue. As the period *approaches* when *miscarriage occurred before*, let vigilance and attention to rule be re-doubled. The patient must now keep on the sofa nearly all day; retire to rest early, still using a mattress, and taking care that the bed-room be airy and well ventilated. If the slightest pain or uneasiness is felt about the loins or hips, the sofa must be immediately resorted to, and the medical attendant called in. If he approves it, a little blood should be lost, and the bowels gently acted upon. When these symptoms subside, the recumbent position must still be continued, and the above directions carefully observed for six or seven weeks beyond the time miscarriage last occurred. At the expiration of that time, I might say I believe *you safe*; gestation will go on. The health is invigorated; and the womb now strengthened, through the general improvement and increased tone of the whole system, is not so irritable, and therefore is not so likely to throw off its contents. It is not so weak, and therefore does not flag as it did before; but is able to carry on those processes which are necessary for the continued life and perfecting of the offspring.

2. The plan to be followed by a woman of vigorous and robust health.

BEFORE PREGNANCY takes place, the excitement and fulness of the system must be gradually reduced, at the same time that its general tone must in no way be impaired. The plan proposed is the following :—

Let the *bowels* be regulated, keeping them slightly relaxed with Rochelle, Epsom, or Cheltenham salts ; and if this is effected, no other medicine will be necessary.

Let the quantity of food be diminished, taking sparingly of meat ; selecting that kind only, and but once a day, to which reference was made before : dining from vegetables, rather than from animal food ; taking no wine or stimulant of any kind ; no fermented liquor, the beverage with dinner being water only. Fashionable hours and habits must be given up ; for they tend to keep up that excited state of the whole system which it ought to be the grand object to allay.

I would recommend rising early ; sleeping in a large and airy room, with little clothes about the person, to prevent the accumulation of too much heat.

The salt-water shower bath must be used every morning ; the quantity of the water being considerable, and, from the first, cold ; observing the precautions, before alluded to, in reference to rapidly drying the body. After the bath, a short walk may be taken before breakfast ; the latter should consist of coffee, brown bread, and fresh

butter. The patient may use considerable, but regular exercise, between breakfast and dinner: horse exercise, if it can be accomplished, is best; but never to fatigue. Change of air is not absolutely necessary; but in spring, and the early part of the summer, great benefit will arise from pursuing this plan during a residence at Cheltenham or Leamington; for every thing there will contribute to its regular and successful employment. In midsummer and autumn, the sea-side is most desirable; as bathing, instead of the shower bath, may be employed, in this case, with great advantage.

AFTER PREGNANCY has taken place the *diet* must be still sparing. If there is headach shortly after, with a full pulse, this slightly renewed excitement of the system, depending as it will upon the new action set up in the womb, must be allayed by the loss of a little blood. This measure must be repeated, in small quantities, if judged necessary by the medical man; never, however, ought it at any time to produce faintness. The cold salt-water shower bath should be still employed daily; and cold water used as an *injection* night and morning. The female syringes are all too small for the latter purpose, and much inconvenience is produced by the frequent necessity of withdrawing the pipe for the purpose of refilling the instrument. This is easily obviated by substituting for the common ivory tube of the lavement

pump a four-inch gum-elastic tube, about half an inch in diameter, and having several holes in its point, which must be rounded off.* Any quantity of fluid may be injected into the *vagina* with this instrument so prepared, without withdrawing the tube. Exercise must be continued, — but not on horseback, and with care. It is most important that the more evident and immediate exciting causes of miscarriage, — such as fatigue, dancing, &c., — should be carefully guarded against; and the patient, from the time she conceives, must sleep alone.

As the *period approaches when she formerly miscarried*, care and attention must be more than ever exercised. She must now keep to the sofa altogether; and continue to do so for five or six weeks. If slight pain in the back should be experienced, it must not create alarm, but it will be right at once to seek medical advice. If, however, the individual has acted up to the rules laid down for her guidance, both for *before* and *after* conception, she need not fear any threatening symptom of her former accident presenting itself; but I confidently promise that she will, by going her full time, receive the ample reward of all her continued care and little privations.

II. *The means which are to be employed to put a stop to miscarriage when it is threatened.*

Now and then, particularly when it occurs for

* Weiss and Son, 62. Strand, always have a quantity of these by them.

the first time, the whole process of a miscarriage does not occupy more than six or seven hours from the very earliest symptom of its approach to its final completion. But in by far the greater majority of cases, more especially when it has become "habitual," its progress is not terminated in as many days, or even weeks. When this is the case—as is already evident—it may be clearly separated into Three Stages; a division I propose to adopt. This will tend to bring this important portion of my subject in a clearer light before the reader, and at the same time assist me considerably while pointing out, though with necessary brevity, those directions which are to be followed in the different stages of this accident.

THE FIRST STAGE. — I shall speak of that as the "First Stage" in which the child has as yet sustained no injury, and the symptoms are only those *menacing* miscarriage.

It commences usually by the woman experiencing a great depression of strength and spirits, without any assignable cause. She loses her appetite, and has a little fever. Pains about her loins and hips soon follow; these are at first transitory,—they go and come, and, after a while, increase in frequency. Or if the patient be of a strong and vigorous constitution, there will be an excited condition of the circulation, manifested by a full pulse, throbbing in the temples, followed by a smart headach, a hot skin, thirst, and no in-

clination for food, and united with pains in the loins and a sense of weight and tension. These are so many symptoms *threatening* miscarriage, but of course much modified by the constitution and previous state of health of the individual. For instance, some will experience only an indistinct dull aching pain in the loins, with slight languor, continuing for many days without any other symptom: but if these feelings come on about the same period from conception at which miscarriage formerly occurred, it behoves the patient at once to attend to them; for, if she does not, she may depend upon it the same event will befall her, however apparently trifling and unimportant the symptoms may be considered.

If then any of the foregoing symptoms present themselves, the medical attendant ought *immediately* to be sent for. This is the time at which he can interfere with the most certain prospect of success; and almost every thing depends upon its being done at a sufficiently early period. This is the first direction offered, — and with the next includes every thing; — *the imperative necessity of a strict and unvarying attention to the rules and regulations which he enjoins.*

It has already been intimated that, at the first approach of these symptoms, the female must at once retire to her bed. She must strictly confine herself to it, resting on a mattress, with few clothes upon her, no curtains about her bed, or

fire in the room — which ought to be large and airy. Her diet must be most sparing, — a little toast and water, lemonade, or thin gruel, tapioca, or sago; and whatever is taken must be given cool. Some gentle aperient, Cheltenham or Epsom salts, in two-drachm doses, may be taken every four hours. By this time, in all probability, the medical man will be at her bed side.

THE SECOND STAGE. — But suppose the patient has not heeded these symptoms; that she has thought nothing of a little pain in the back, etc., and never having before miscarried, she has looked upon them as of no consequence; the local pains will increase in frequency and power, and soon a discharge of blood, in clots, will be discovered, or, if more freely, of a clotting bright colour. This indicates that a partial separation of the child has taken place, and brings us to what I call the “Second Stage.”

Now, although it must be apparent that, under these circumstances, the probability that the process of miscarriage will go on is much greater than in the former stage, still I have no hesitation in saying that it is possible to check it even here; and that frequently. But in a situation so critical, it will require a prompt and vigorous practice on the part of the medical man, and an equally decided and vigilant conduct on the part of the patient herself; and let her recollect, when tempted

to disobey the instructions she receives, because they may appear trifling, or a little too rigorous, that no man who enjoys her confidence would willingly lay down one rule too strict, or one injunction the performance of which was unimportant: and remember, also, that by *one* act of disobedience she may blast every hope of success; and thus throw away, in a single moment, the result of hours, nay of days and weeks, of careful and persevering deprivation. The only directions advisable for adoption before the medical man arrives are, strict rest in bed, — cold water dashed over the loins and hips, and the sudden application now and then of a piece of linen dipped in cold vinegar and water, — perfect abstinence, — and the aperient, as in the former case, every four hours.

A woman never ought, if the premonitory symptoms have been present, to advance to this stage of the accident; but it may be brought about very quickly by the shock from a fall, or any great exertion, when the first and second stages will frequently merge into one, — separation of some portion of the child having taken place from the first. Let her, under these circumstances, follow the above directions, until she can obtain further advice.

THE THIRD STAGE. — If the previous means for stopping the progress of the threatened mis-

carriage are unsuccessful, — if the discharge continues, the pains increase, becoming slightly bearing down, and the other signs follow which have before been pointed out, the “Third Stage” is far advanced; and of course every expectation of success on the part of the patient, or her attendant, must have fled, — and it only remains for the latter to conduct her safely through to the end; and afterwards adopt means for restoring her health and strength.

One remark, however, it is important to make here. Whenever miscarriage occurs as late as the *third* month, or at any time after this period, the strictest observance of the recumbent posture is as necessary after the accident has taken place, as it is after delivery at the full period; particularly if there has been much discharge prior to the extrusion of the ovum. This direction will gain weight by my observing, that very lately I was called to a case where discharge was a second time induced, and life nearly lost, owing to the neglect of this caution; the lady getting out of bed an hour or two after a miscarriage of between three and four months. And it may be useful also to add, that patients, after a miscarriage, generally go about too early. The womb at this time being larger and heavier than in its natural state, this is likely to induce “a falling down” of this organ, — or the lesser evil, a troublesome attack of “the whites;” both of which are avoided by keeping

the recumbent posture for a week or ten days after a miscarriage.

THE FIRST STAGE, then, is one of *warning*; and, by improving it in time, a female ought never to miscarry.

THE SECOND STAGE is one of *hope*; and with strict attention, that hope may be realised.

THE THIRD STAGE is one in which all means of prevention are useless; and therefore its treatment has not fallen under our notice.

CHAPTER V.

OF RECKONING, OR OF THE MODE OF TELLING
WHEN LABOUR MAY BE EXPECTED.

THE time when confinement may be expected, particularly if it be a first pregnancy, is naturally a matter of considerable interest and importance to the young married woman; and it is certainly very desirable on all accounts that it should be as accurately determined as may be.

It is impossible, however, by what is popularly called "reckoning," or indeed by any other means, to ascertain the *exact* day upon which labour will take place. There are many circumstances which prevent this, amongst others, the uncertainty connected with the duration of pregnancy itself. By some, this period is limited to nine calendar months; by others, extended to ten lunar months; thus the estimated time differs with different medical men.

And here in passing I would just observe, that the duration of pregnancy is spoken of in some works, and not unfrequently by professional men in conversation, as lasting "nine calendar months or forty weeks," as if these periods were one and the same. This, however, it ought to be remembered, is not the fact, for there is nearly a difference of a week. Nine calendar

months may be reckoned from 273 to 275 days, according to the months of the year included; while 40 weeks are equal to 280 days. This is an important point, and it too frequently escapes the recollection of many persons.

I believe the best way to meet the difficulty just mentioned, is to allow 40 weeks, or 280 days from the day after the last day of the woman being unwell. Let her take this as her rule, and calculate by it, and she will most commonly be right. When consulted upon this matter, I ask my patient when she was last unwell? how long she continued so? and from the day of its termination I reckon 40 weeks. Thus, a lady tells me she was taken unwell on the 28th December, and continued so four days; I add one more, and from this day, being the 1st January, I reckon 40 weeks, and conclude that she will fall in labour on the 8th October, *a day or two before or after*. I say a day or two before or after, because it is impossible to decide the matter to an hour or a day, for, as has been before observed, the duration of pregnancy itself is not absolutely certain; it may in some women be more, in others less, than the time above specified. But I believe the above method will fix the time as near to the event as is possible, and in truth, as near to certainty as ought to be wished. For it must be obvious, that, although it is important that the female should know to a day or two when she may expect to be confined, to be

acquainted with the exact day or hour for many weeks before that event is any thing but desirable, and therefore it is benevolently and kindly hidden.

Sometimes, when asking the question, "When were you last unwell?" in order to determine the time when labour may be expected, the patient replies, "I have forgotten; I am very sorry, but I cannot remember!" This leads me to suggest that it would be well for every married woman to register, monthly, this event, so that if she becomes pregnant, and this function ceases, she may know the exact day when it did so.

For the purpose of facilitating reckoning, the following tables have been made. They are constructed very much on the plan originally adopted by Dr. Desberger, of Erfurth, and were first seen by myself, in a copy of these Hints, published in America, in 1841. The mode of using them needs but little explanation. Suppose a lady is taken unwell on the 28th of December, and continues so till the 31st, the reckoning must then commence on the day following—the 1st of January. Look for this date in the first column of the January table, and the corresponding dates of quickening and labour will be found standing in the same line; that is to say, she will quicken about the 20th May, and be confined about the 8th October.

The period when last unwell, however, may not be recollected, or other circumstances referred to at length in the second chapter of this work, may

♦

be present, which may throw a woman out of her reckoning altogether. If such should exist, she must wait till quickening occurs, and then look for that date in the middle column of the tables, and she will find the respective dates of the beginning and end of pregnancy on the same line. We will suppose, for the sake of illustration, the quickening to take place on the 20th May: she must look for the table in which May stands in the *middle* column (viz. the January table), and it will be seen that the confinement may be expected on the 8th October. This, however, is at best but an uncertain mode of calculation, since the period of quickening varies very much, but it is the only one I have to offer.

JANUARY.		
Date of becoming Pregnant.		Date of Quickening.
Date of expected Confinement.		
JANUARY	1.	MAY 20.
...	2.	... 21.
...	3.	... 22.
...	4.	... 23.
...	5.	... 24.
...	6.	... 25.
...	7.	... 26.
...	8.	... 27.
...	9.	... 28.
...	10.	... 29.
...	11.	... 30.
...	12.	... 31.
...	13.	JUNE 1.
...	14.	... 2.
...	15.	... 3.
...	16.	... 4.
...	17.	... 5.
...	18.	... 6.
...	19.	... 7.
...	20.	... 8.
...	21.	... 9.
...	22.	... 10.
...	23.	... 11.
...	24.	... 12.
...	25.	... 13.
...	26.	... 14.
...	27.	... 15.
...	28.	... 16.
...	29.	... 17.
...	30.	... 18.
...	31.	... 19.
		NOVEMBER 1.
		... 2.
		... 3.
		... 4.
		... 5.
		... 6.
		... 7.

FEBRUARY.

Date of becoming Pregbant.		Date of Quickening.		Date of expected Confinement.	
FEBRUARY	1.	JUNE	20.	NOVEMBER	8.
...	2.	...	21.	...	9.
...	3.	...	22.	...	10.
...	4.	...	23.	...	11.
...	5.	...	24.	...	12.
...	6.	...	25.	...	13.
...	7.	...	26.	...	14.
...	8.	...	27.	...	15.
...	9.	...	28.	...	16.
...	10.	...	29.	...	17.
...	11.	...	30.	...	18.
...	12.	JULY	1.	...	19.
...	13.	...	2.	...	20.
...	14.	...	3.	...	21.
...	15.	...	4.	...	22.
...	16.	...	5.	...	23.
...	17.	...	6.	...	24.
...	18.	...	7.	...	25.
...	19.	...	8.	...	26.
...	20.	...	9.	...	27.
...	21.	...	10.	...	28.
...	22.	...	11.	...	29.
...	23.	...	12.	...	30.
...	24.	...	13.	DECEMBER	1.
...	25.	...	14.	...	2.
...	26.	...	15.	...	3.
...	27.	...	16.	...	4.
...	28.	...	17.	...	5.

MARCH.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
MARCH	1.	JULY	18.	DECEMBER	6.
...	2.	...	19.	...	7.
...	3.	...	20.	...	8.
...	4.	...	21.	...	9.
...	5.	...	22.	...	10.
...	6.	...	23.	...	11.
...	7.	...	24.	...	12.
...	8.	...	25.	...	13.
...	9.	...	26.	...	14.
...	10.	...	27.	...	15.
...	11.	...	28.	...	16.
...	12.	...	29.	...	17.
...	13.	...	30.	...	18.
...	14.	...	31.	...	19.
...	15.	AUGUST	1.	...	20.
...	16.	...	2.	...	21.
...	17.	...	3.	...	22.
...	18.	...	4.	...	23.
...	19.	...	5.	...	24.
...	20.	...	6.	...	25.
...	21.	...	7.	...	26.
...	22.	...	8.	...	27.
...	23.	...	9.	...	28.
...	24.	...	10.	...	29.
...	25.	...	11.	...	30.
...	26.	...	12.	...	31.
...	27.	...	13.	JANUARY	1.
...	28.	...	14.	...	2.
...	29.	...	15.	...	3.
...	30.	...	16.	...	4.
...	31.	...	17.	...	5.

APRIL.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
APRIL	1.	AUGUST	18.	JANUARY	6.
...	2.	...	19.	...	7.
...	3.	...	20.	...	8.
...	4.	...	21.	...	9.
...	5.	...	22.	...	10.
...	6.	...	23.	...	11.
...	7.	...	24.	...	12.
...	8.	...	25.	...	13.
...	9.	...	26.	...	14.
...	10.	...	27.	...	15.
...	11.	...	28.	...	16.
...	12.	...	29.	...	17.
...	13.	...	30.	...	18.
...	14.	...	31.	...	19.
...	15.	SEPTEMBER	1.	...	20.
...	16.	...	2.	...	21.
...	17.	...	3.	...	22.
...	18.	...	4.	...	23.
...	19.	...	5.	...	24.
...	20.	...	6.	...	25.
...	21.	...	7.	...	26.
...	22.	...	8.	...	27.
...	23.	...	9.	...	28.
...	24.	...	10.	...	29.
...	25.	...	11.	...	30.
...	26.	...	12.	...	31.
...	27.	..	13.	FEBRUARY	1.
...	28.	...	14.	...	2.
...	29.	...	15.	...	3.
...	30.	...	16.	...	4.

MAY.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
MAY.	1.	SEPTEMBER	17.	FEBRUARY	5.
...	2.	...	18.	...	6.
...	3.	...	19.	...	7.
...	4.	...	20.	...	8.
...	5.	...	21.	...	9.
...	6.	...	22.	...	10.
...	7.	...	23.	...	11.
...	8.	...	24.	...	12.
...	9.	...	25.	...	13.
...	10.	...	26.	...	14.
...	11.	...	27.	...	15.
...	12.	...	28.	...	16.
...	13.	...	29.	...	17.
...	14.	...	30.	...	18.
...	15.	OCTOBER	1.	...	19.
...	16.	...	2.	...	20.
...	17.	...	3.	...	21.
...	18.	...	4.	...	22.
...	19.	...	5.	...	23.
...	20.	...	6.	...	24.
...	21.	...	7.	...	25.
...	22.	...	8.	...	26.
...	23.	...	9.	...	27.
...	24.	...	10.	...	28.
...	25.	...	11.	MARCH	1.
...	26.	...	12.	...	2.
...	27.	...	13.	...	3.
...	28.	...	14.	...	4.
...	29.	...	15.	...	5.
...	30.	...	16.	...	6.
...	31.	...	17.	...	7.

JUNE.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
JUNE	1.	OCTOBER	18.	MARCH	8.
...	2.	...	19.	...	9.
...	3.	...	20.	...	10.
...	4.	...	21.	...	11.
...	5.	...	22.	...	12.
...	6.	...	23.	...	13.
...	7.	...	24.	...	14.
...	8.	...	25.	...	15.
...	9.	...	26.	...	16.
...	10.	...	27.	...	17.
...	11.	...	28.	...	18.
...	12.	...	29.	...	19.
...	13.	...	30.	...	20.
...	14.	...	31.	...	21.
...	15.	NOVEMBER	1.	...	22.
...	16.	...	2.	...	23.
...	17.	...	3.	...	24.
...	18.	...	4.	...	25.
...	19.	...	5.	...	26.
...	20.	...	6.	...	27.
...	21.	...	7.	...	28.
...	22.	...	8.	...	29.
...	23.	...	9.	...	30.
...	24.	...	10.	...	31.
...	25.	...	11.	APRIL	1.
...	26.	...	12.	...	2.
...	27.	...	13.	...	3.
...	28.	...	14.	...	4.
...	29.	...	15.	...	5.
...	30.	...	16.	...	6.

JULY.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
JULY	1.	NOVEMBER	17.	APRIL	7.
...	2.	...	18.	...	8.
...	3.	...	19.	...	9.
...	4.	...	20.	...	10.
...	5.	...	21.	...	11.
...	6.	...	22.	...	12.
...	7.	...	23.	...	13.
...	8.	...	24.	...	14.
...	9.	...	25.	...	15.
...	10.	...	26.	...	16.
...	11.	...	27.	...	17.
...	12.	...	28.	...	18.
...	13.	...	29.	...	19.
...	14.	...	30.	...	20.
...	15.	DECEMBER	1.	...	21.
...	16.	...	2.	...	22.
...	17.	...	3.	...	23.
...	18.	...	4.	...	24.
...	19.	...	5.	...	25.
...	20.	...	6.	...	26.
...	21.	...	7.	...	27.
...	22.	...	8.	...	28.
...	23.	...	9.	...	29.
...	24.	...	10.	...	30.
...	25.	...	11.	MAY	1.
...	26.	...	12.	...	2.
...	27.	...	13.	...	3.
...	28.	...	14.	...	4.
...	29.	...	15.	...	5.
...	30.	...	16.	...	6.
...	31.	...	17.	...	7.

AUGUST.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
AUGUST	1.	DECEMBER	18.	MAY	8.
...	2.	...	19.	...	9.
...	3.	...	20.	...	10.
...	4.	...	21.	...	11.
...	5.	...	22.	...	12.
...	6.	...	23.	...	13.
...	7.	...	24.	...	14.
...	8.	...	25.	...	15.
...	9.	...	26.	...	16.
...	10.	...	27.	...	17.
...	11.	...	28.	...	18.
...	12.	...	29.	...	19.
...	13.	...	30.	...	20.
...	14.	...	31.	...	21.
...	15.	JANUARY	1.	...	22.
...	16.	...	2.	...	23.
...	17.	...	3.	...	24.
...	18.	...	4.	...	25.
...	19.	...	5.	...	26.
...	20.	...	6.	...	27.
...	21.	...	7.	...	28.
...	22.	...	8.	...	29.
...	23.	...	9.	...	30.
...	24.	...	10.	...	31.
...	25.	...	11.	JUNE	1.
...	26.	...	12.	...	2.
...	27.	...	13.	...	3.
...	28.	...	14.	...	4.
...	29.	...	15.	...	5.
...	30.	...	16.	...	6.
...	31.	...	17.	...	7.

SEPTEMBER.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
SEPTEMBER	1.	JANUARY	18.	JUNE	8.
...	2.	...	19.	...	9.
...	3.	...	20.	...	10.
...	4.	...	21.	...	11.
...	5.	...	22.	...	12.
...	6.	...	23.	...	13.
...	7.	...	24.	...	14.
...	8.	...	25.	...	15.
...	9.	...	26.	...	16.
...	10.	...	27.	...	17.
...	11.	...	28.	...	18.
...	12.	...	29.	...	19.
...	13.	...	30.	...	20.
...	14.	...	31.	...	21.
...	15.	FEBRUARY	1.	...	22.
...	16.	...	2.	...	23.
...	17.	...	3.	...	24.
...	18.	...	4.	...	25.
...	19.	...	5.	...	26.
...	20.	...	6.	...	27.
...	21.	...	7.	...	28.
...	22.	...	8.	...	29.
...	23.	...	9.	...	30.
...	24.	...	10.	JULY	1.
...	25.	...	11.	...	2.
...	26.	...	12.	...	3.
...	27.	...	13.	...	4.
...	28.	...	14.	...	5.
...	29.	...	15.	...	6.
...	30.	...	16.	...	7.

OCTOBER.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
OCTOBER	1.	FEBRUARY	17.	JULY	8.
...	2.	...	18.	...	9.
...	3.	...	19.	...	10.
...	4.	...	20.	...	11.
...	5.	...	21.	...	12.
...	6.	...	22.	...	13.
...	7.	...	23.	...	14.
...	8.	...	24.	...	15.
...	9.	...	25.	...	16.
...	10.	...	26.	...	17.
...	11.	...	27.	...	18.
...	12.	...	28.	...	19.
...	13.	MARCH	1.	...	20.
...	14.	...	2.	...	21.
...	15.	...	3.	...	22.
...	16.	...	4.	...	23.
...	17.	...	5.	...	24.
...	18.	...	6.	...	25.
...	19.	...	7.	...	26.
...	20.	...	8.	...	27.
...	21.	...	9.	...	28.
...	22.	...	10.	...	29.
...	23.	...	11.	...	30.
...	24.	...	12.	...	31.
...	25.	...	13.	AUGUST	1.
...	26.	...	14.	...	2.
...	27.	...	15.	...	3.
...	28.	...	16.	...	4.
...	29.	...	17.	...	5.
...	30.	...	18.	...	6.
...	31.	...	19.	...	7.

NOVEMBER.					
Date of becoming Pregnant..		Date of Quickening.		Date of expected Confinement.	
NOVEMBER	1.	MARCH	20.	AUGUST	8.
...	2.	...	21.	...	9.
...	3.	...	22.	...	10.
...	4.	...	23.	...	11.
...	5.	...	24.	...	12.
...	6.	...	25.	...	13.
...	7.	...	26.	...	14.
...	8.	...	27.	...	15.
...	9.	...	28.	...	16.
...	10.	...	29.	...	17.
...	11.	...	30.	...	18.
...	12.	...	31.	...	19.
...	13.	APRIL	1.	...	20.
...	14.	...	2.	...	21.
...	15.	...	3.	...	22.
...	16.	...	4.	...	23.
...	17.	...	5.	...	24.
...	18.	...	6.	...	25.
...	19.	...	7.	...	26.
...	20.	...	8.	...	27.
...	21.	...	9.	...	28.
...	22.	...	10.	...	29.
...	23.	...	11.	...	30.
...	24.	...	12.	...	31.
...	25.	...	13.	SEPTEMBER	1.
...	26.	...	14.	...	2.
...	27.	...	15.	...	3.
...	28.	...	16.	...	4.
...	29.	...	17.	...	5.
...	30.	...	18.	...	6.

DECEMBER.					
Date of becoming Pregnant.		Date of Quickening.		Date of expected Confinement.	
DECEMBER	1.	APRIL	19.	SEPTEMBER	7.
...	2.	...	20.	...	8.
...	3.	...	21.	...	9.
...	4.	...	22.	...	10.
...	5.	...	23.	...	11.
...	6.	...	24.	...	12.
...	7.	...	25.	...	13.
...	8.	...	26.	...	14.
...	9.	...	27.	...	15.
...	10.	...	28.	...	16.
...	11.	...	29.	...	17.
...	12.	...	30.	...	18.
...	13.	MAY	1.	...	19.
...	14.	...	2.	...	20.
...	15.	...	3.	...	21.
...	16.	...	4.	...	22.
...	17.	...	5.	...	23.
...	18.	...	6.	...	24.
...	19.	...	7.	...	25.
...	20.	...	8.	...	26.
...	21.	...	9.	...	27.
...	22.	...	10.	...	28.
...	23.	...	11.	...	29.
...	24.	...	12.	...	30.
...	25.	...	13.	OCTOBER	1.
...	26.	...	14.	...	2.
...	27.	...	15.	...	3.
...	28.	...	16.	...	4.
...	29.	...	17.	...	5.
...	30.	...	18.	...	6.
...	31.	...	19.	...	7.

CHAPTER VI.

HINTS FOR THE LYING-IN ROOM.

PART I.*Referring to the Mother.*

SECT. I.—THE PERIOD PREVIOUS TO LABOUR.

OF LABOUR ITSELF AND THE SYMPTOMS OF ITS APPROACH. — “In every circumstance which relates to natural parturition, it is impossible not to see, and not to admire, the wisdom and goodness of Providence, in ordaining the power, and fitting the exertion to the necessities of the situation, with a marked respect to the safety both of the mother and the child.” These, the words of one of the most practical and eminent physician-accoucheurs of his day—the late Dr. Denman—deserve the thoughtful consideration of every woman about to become a mother. They contain a most important and valuable truth, the know-

ledge of which is in a high degree calculated to remove unnecessary apprehension, and particularly that sort of undefined dread which almost all women suffer under when looking forward to labour for the first time. To all such, then, I would say, weigh these words well; they will greatly tend to strengthen and fortify your mind in anticipation of those sufferings which you must pass through, and to relieve it of that needless anxiety with regard to the result, to which your own inexperience, and the idle gossip of the ignorant, may have given rise. "Your safety in child-birth," Denman says elsewhere, "is ensured by more numerous and powerful resources, than under any other circumstances, though to appearance less dangerous." Let the timid and nervous woman, when in the prospect of labour she may be disposed to despond, remember these statements, and in the hour of trial itself let them afford her that encouragement and comfort with which they are fraught. And, again, while I would not speak lightly of the *pain* she will have to endure, because to speak lightly would not be to speak truly, still I can assure her, as the result of many years' experience, that again and again has my patient, after her labour, informed me that the amount of pain has fallen far short of what she expected; and that in a large majority of cases patients have acknowledged that they have been enabled to bear their sufferings very much better than they anti-

cipated. I need scarcely remind her of the *reward* of her sufferings; that although the decree has gone forth, “in sorrow thou shalt bring forth children,” it has also been declared, and how true is it, that “she remembereth no more the anguish, for joy that a man is born into the world.”

For some time before the commencement of actual labour, a variety of changes are taking place, which nature is making preparatory to the process itself. Of these, however, the female knows nothing, except indeed of one change, which becomes marked and evident enough in most cases, viz. an alteration in the form and size of the abdomen. This is sometimes so considerable, that a woman often appears, and really is, less in the ninth than in the eighth month of pregnancy. This *subsidence of the abdomen* arises in part from the fact of the child being situated lower than formerly; it sinks down. This change takes place either gradually, and therefore imperceptibly, from day to day, while yet it is sufficiently obvious after the lapse of several; or suddenly, during the course of one night. It may appear some days before labour; oftener, however, only a few hours before its commencement.

It is a useful symptom, affording to the medical attendant satisfactory information, and pointing out to the patient that her labour is not far off. And it is attended with certain effects, in part agreeable, and in part productive of discomfort;—

agreeable, because the woman now feels lighter and more alert, and breathes with more ease and comfort than she has done for weeks past, and her night's rest, consequently, is less interrupted and far more refreshing to her;—attended with discomfort, because the child being lower, the bladder and lower bowel are somewhat pressed upon, and an irritable condition of one or both may arise.

Many women are subject, towards the close of pregnancy, to pains, which, in their situation, continuance, and recurrence, so much resemble those of labour, that, though in reality of a different kind, an individual who has even had many children may not be able to distinguish them. These are called "*False or spurious pains.*" They will be situated in the back and bowels, passing round to the loins, and descending to the hips and thighs, going and coming like labour pains. They are sometimes attended with an involuntary effort to press down, when they bear so close a resemblance to the pains of an advanced stage of labour, as not only to make a woman believe that labour has commenced, but that she is about to be delivered.

They may come on ten days or a fortnight previous to actual labour, and may continue irregularly until that period; which circumstance explains those cases we occasionally hear of where women are said to be in labour ten days or more,

when, in all human probability, they were not really in labour half the number of hours.

Again, before a first labour, false pains frequently occur, last for some hours, and are then followed by actual labour, which is thus made to appear a very long, tedious, and wearisome process to a young female who is entirely ignorant of the matter; when, in fact, the labour perhaps was, for a first, of fair average duration.

As they may be produced by a disturbed condition of the bowels, from flatulence, costiveness, or an attack of diarrhoea, — also from great physical fatigue, or mental excitement, all these causes ought to be carefully avoided. And if an attack comes on, medical aid must at once be sought.

ATTENDANTS. — *The nurse*, it is well to have in the house a few days before confinement is expected. Some ladies I know object to this. I think it an unwise objection. Suppose labour comes on suddenly in the middle of the night, and proceeds rapidly. While the medical man and the nurse are gone for, you are left alone with young and ignorant servants, who can give you neither comfort nor help. This is surely not a very enviable position to be placed in, and as it is easily avoided, it ought to be.

The well-doing of the patient during the lying-in month so much depends upon the nurse, that she ought not to be hastily or thoughtlessly

chosen; and none are justified in recommending an individual for this important duty, unless they are personally acquainted with her fitness for the office. Too little attention is usually paid to this point; and although the lying-in room is not to be considered a sick room, still its duties require quite as much vigilance and attention, or it will otherwise inevitably assume that character.

Serious and important are the duties which devolve upon the monthly nurse; and well would it be for English women, if all who undertake this office came from a better educated class of society than they too often do. Ignorance and coarseness of manner are unbearable in a nurse: it is dangerous to have such a person to carry out your measures; while she is certainly any thing but a fit companion for the patient, who nevertheless has almost no other for two or three weeks.

A nurse should be intelligent (that is, possess good common sense, and have made a good use of it), so that she may be able fully to comprehend and remember the directions and wishes of the medical man; tender in her mode of carrying those directions into effect, and gentle in her general manner; active, and physically able to do all that is required of her; and lastly, vigilant, that she may quickly discern the approach of symptoms (if they should arise) that demand the attendance of the physician. It is well, too, when she has been a mother herself, that she may be

able, from experience, to sympathise with that class of sufferings she is called upon to alleviate.

Deafness in a nurse is a great evil. However able in other respects (and they are generally a most willing class of persons), this infirmity renders her decidedly unfit for the lying-in chamber. Amongst other reasons, the difficulty of arousing a deaf person in the middle of the night, when perhaps in a deep sleep, has been again and again experienced as a great annoyance.

The *friend* that is to be present should also be now sent for. The young married woman usually and naturally enough selects her mother as the friend to be present during her labour. If the nearest and dearest ties of affection were the sole criterion of fitness for this duty, then indeed would the choice be wise, and the offices required be admirably performed. But, inasmuch as self-possession and the most perfect command of the feelings are as essential in the attendants of the lying-in room as kindness of disposition and tenderness of behaviour, so the parent will do well to pause before she ventures upon the task. If assured that her feelings are not likely to betray her judgment, then indeed will her presence be a source of great comfort to the patient, and a relief to the medical man; but if not, it would be cruel of her to undertake the office, and a confidante must be selected in some judicious and affectionate married friend, whose presence during the

hour of trial will insure sympathy and yet encouragement.

Always send for *the medical man* as soon as any symptom of labour comes on. Whether it be necessary for him to remain in the house or not, he will determine. It is true there is little fear of his being too late in his arrival in the lying-in room, if it be a first labour; though even this may occur, for such labour may be unusually rapid, though it is rarely so. There is no saying, however, how quick after-labours may be; and, therefore, it is never safe to delay sending an early summons. This observation is made because it not unfrequently happens that a patient, recollecting that her former and first labour was tedious, and unwilling needlessly to occupy her professional man's time, hesitates to send for him. Meanwhile her labour may suddenly and rapidly advance; and the child, contrary to all expectation, be born before the arrival of the accoucheur. When the first positive signs of labour then show themselves, send for the medical attendant, and he can determine on the propriety of remaining or otherwise.

During the labour the medical man, the nurse, and the patient's friend are all the assistants the occasion demands. The lying-in room is not the place for a crowd. A great number of persons breathing the atmosphere of the same room soon pollute it; and if there happen to be a fire, its temperature will inevitably be raised to a point

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which will make the patient restless and feverish, and add to her feelings of fatigue; and this again, by rendering the pains irregular or ineffective, will often needlessly protract the labour. The patient also is much disturbed by their conversation; and what is a much greater evil than this, they frequently, by their imprudent remarks, diminish her confidence in her own powers, and sometimes also in the skill and judgment of her necessary attendants. The conversation of such persons too often turns upon the long and tedious labours said to be witnessed elsewhere, the details of which, of course, lose nothing by repetition. This is most injudicious and injurious to the patient's state. It inevitably produces an unfavourable impression on her mind, and creates doubts and fears as to the result of her own labour which otherwise would never have arisen. This has the invariable and immediate effect of diminishing the force and frequency of the labour-pains, and sometimes of suppressing them altogether for many hours. Such subjects ought never even to be alluded to in the lying-in chamber. The conversation ought ever to be cheerful and encouraging; and there can be no possible reason why it should be otherwise. The hope of a happy, and it may be speedy, termination to her sufferings, should ever be kept in the view of the patient. It will inspire her with an activity and resolution, which will have a most useful and

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favourable influence upon her situation. There is no fear, however, of such persons or topics being introduced into the lying-room, if the previous advice in reference to the individuals to be selected for this occasion is only acted upon.

I have repeatedly seen the bad effects of a hot and crowded room. Once and again have I been called up in the night to a labour, which, considering the time it commenced, ought to have terminated in the day, had it not been protracted by the causes now adverted to. In one of these cases I counted in the lying-in room, and that by no means a large one, as many as half a dozen people, who, by the help of a large fire, had rendered the atmosphere so heated and impure, that one would have thought that every body not necessitated to remain by duty would have been glad to get out of it as soon as possible. To make matters worse for the patient, she was half buried in a soft feather-bed; while a friend, if not two, were on the bed for the alleged purpose of supporting her *back*: for supporting her *strength*, cordials had been from time to time administered. This state of things having existed for hours, with the talking, and gossip, and anxious looks of the friends, it is not very wonderful that the patient's strength had become entirely exhausted; her mind depressed; and the natural progress of the labour so interrupted, that artificial assistance had at last been imagined necessary. Such as-

sistance, however, was not required, as it seldom is, and the remedies were as simple as they were successful. I put the fire out, and the friends too. I relieved the patient's mind of its heavy burden by fairly explaining to her how her present condition had been brought about, and by confidently and truly assuring her of a successful issue of her labour. Rest and perfect quiet were then obtained; and after a little while, the apartment having become cool, she fell into a refreshing slumber. By and by she was aroused by labour pains, which had been impeded and almost suspended by the former mismanagement; they became vigorous and frequent, and after a while the case terminated naturally and safely.

Such a case as the one just related is by no means a solitary one; and though the state of the lying-in room may not often be quite so bad as that above described, it often approximates to it.

These cases are generally talked of afterwards by the friends who have been present, as having been severe and alarming: they always forget to add one fact,—that if so, they themselves were the cause of it.

It would be unpardonable were I to omit that I have witnessed the injurious effects of communicating distressing intelligence to a patient in labour. Whatever may happen, let it not reach the lying-in room. Mental excitement of any kind tends to disturb and interrupt the favourable process of

child-birth; and the same remark applies, with equal force, to the early days after delivery.

Every requisite which is necessary for a lying-in chamber, should at this time be in its place, and ready for use. It is unnecessary to detail minutely what is required. The skin of leather, or a large sheet of oil-skin, for guarding the bed, or, which is preferable, the Mackintosh sheeting; the dressing-gown for the patient to wear in the early part of labour, and the other portions of dress detailed under the section "Dress;" the broad bandage; the small horse-hair cushion for a later period of the labour, to be firmly secured to the post of the bed for the feet to press against; pomatum or lard; a skein of strong sewing thread; the flannel receiver, and a plentiful supply of linen generally; the wooden bath, referred to in Part the Second of this chapter (page 220.)—these, and other things which will naturally suggest themselves to all persons familiar with the lying-in room, should all now be in readiness.

THE BED-ROOM.—The bed-room of a lying-in patient should be large and airy, and, if possible, communicate with another room. It should have a fireplace for fire in winter, which in the summer should be made in the adjoining apartment. Of all rooms in the house it should be the room least exposed to noise.

The proper ventilation for the lying-in room throughout the month (as much so as during the

labour) must be carefully attended to. The air must be kept cool and fresh; its temperature never allowed to exceed 60° of Fahrenheit; and nothing that would render the atmosphere impure must be permitted to remain in the room one moment longer than necessary. There can be no doubt that one of the principal sources of those diseases of the lying-in room, which in former times were so prevalent in this country, was the impure and heated air, together with the smothering system then pursued. The prejudices in which that system originated are not altogether laid aside in the present day, and the medical man's directions upon this subject are too frequently disregarded. I am continually obliged upon entering the bed-room to draw aside the curtains, to open the door, or order the fire to be kept low that a hot room may be made bearable.

The bed, in summer, should have only so much hangings about it as will serve to protect the patient from draught; while, in winter, the curtains must never be so closely drawn that the atmosphere within them shall become confined and heated.

APERIENT MEDICINE.—As labour approaches the bowels should invariably be cleared by some aperient, or consequences exceedingly disagreeable to a delicate woman will inevitably occur at the latter stage of the labour. A table-spoonful

of castor oil is the best medicine for this purpose, particularly if the bowels have already been confined a day or two, and there appears to be sufficient time for its operation. If, however, labour has commenced, by no means take aperient medicine, but use the lavement, — the injection to consist of one pint of warm thin gruel, or barley-water, with two table-spoonfuls of castor oil.

SECT. II. — THE PERIOD DURING THE PROCESS OF LABOUR.

THE BED. — As the patient is to lie on her *left* side, the bed must be so placed that she may be either at the foot, or right side of the bed. Many prefer the foot, because the foot-post serves to support the feet during what is called the second stage of labour; but then this post should have a *small hair cushion* secured firmly to it by straps for the feet to press against, otherwise they will be found tender and fretted subsequent to labour.

Where there is both a mattress and bed, it is better for the mattress to be uppermost. The patient in a feather-bed is likely to sink into a hole, which is inconvenient to the attendant, and keeps the patient too hot and close.

And, next, the bed must be “guarded,” as it is popularly called; that is, so arranged as to pre-

serve it with certainty from being soiled or injured. The method of doing this is very simple. The blanket and sheet having been placed upon the feather-bed, or mattress, as usual, a blanket is to be spread upon the right side of the bed, and towards the lower end, and upon this a skin of leather, or a large sheet of oil-skin, or the Mackintosh sheeting; one or two blankets are now to be folded over this—then a sheet, upon which the patient lies on her left side; and, lastly, a sheet, blanket, &c., is to be thrown over her person, as the season of the year may determine. Patients are frequently too warmly covered by the nurse, which relaxes and weakens when strength is of so much consequence.

It is a common practice on the Continent to deliver a woman on one bed, and immediately after to remove her to another. This plan is sometimes adopted in this country: it is only necessary to observe that such a mode of procedure incurs much danger.

THE DRESS.—When the pains of labour first commence, the dress should be so arranged that if its progress becomes suddenly rapid it may be readily changed.

A loose dressing-gown is best in the earlier part of the labour. This must be exchanged, when the patient lies down for good, for a chemise and bed-gown folded up smoothly to the waist, and a

flannel petticoat without shoulder straps, that it may afterwards be readily removed.

A broad bandage, too, must be passed loosely round the abdomen as the labour advances to its close; and its application must not be left until after the delivery, for it then would be attended with some difficulty and some risk. Neither must its use, on any account, be omitted altogether, as the most serious consequences have frequently resulted from such neglect. The breadth will depend upon the size of the woman; but it should be wide enough to extend from the chest to the lowest part of the stomach. The best thing is a new and sufficiently large towel; for although a proper belt (to which we shall refer shortly) must be eventually applied, there are obvious reasons why this is not advisable immediately after delivery.

Some persons suppose that wearing their stays during labour assists them, affording support; but they are improper, being rather in the way than useful.

SHIVERING.—Rigours are very common during the early part of labour, and will vary in degree from a gentle tremor to an agitation of the frame so violent as to shake the bed on which the patient rests. It is most desirable that this should be known, lest it should produce alarm, for which there is not the slightest ground. I am acquainted

with one lady, where this symptom always ushers in her labour, which is quickly and easily accomplished.

The attendants in the room will wish to give spirits, warm spiced wine, &c., to relieve these rigours; but this should be resisted. Warm diluting drinks are always useful, as tea, a cup of coffee, or plain gruel; but wine, or spirits and water, ought to be absolutely forbidden, for they are unnecessary, and are always productive of fever, and subsequent mischief.

VOMITING.—An inclination to be sick, followed by actual vomiting, is one of the most frequent occurrences attending the *early* part of labour.

It may be produced by the close sympathy which exists between the stomach and womb, but an overloaded stomach is a more frequent cause. In either case it is useful: in the latter, it clears the stomach of improper food; in the former, the practitioner sometimes is very sensible of the good effects arising from it in forwarding the labour. It is an every-day saying of a monthly nurse, “that one fit of vomiting has more effect than six pains,” and there is a good deal of truth in it.

CRAMP.—This is very likely to trouble the patient who has been unnecessarily kept for many hours on the bed in one position. It may affect the muscles of the side, the thighs, or legs.

Except that it produces intense pain for the moment it lasts, it is not attended with any unfavourable result; is relieved by the friction of a warm hand; or, if the patient be able, by getting up, and walking for a minute or two about the bed-room.

THE BLADDER.—In the *early* part of labour there will be a constant inclination to pass the urine; and very frequently it will be driven from the bladder in small quantities at every pain, which often leads the patient and her friends to believe that “the waters” are escaping. The latter circumstance naturally excites alarm if the medical attendant has not arrived. There is not the slightest cause for this.

Sometimes an opposite condition will exist in a *more advanced* stage of the labour, particularly if it has been protracted—*an inability to pass the urine when the desire arises*. This should never be disregarded by the patient; the medical man should always be informed of it, as also if many hours pass by without the desire itself occurring.

Much present inconvenience, and sometimes lasting mischief, have arisen from a neglect of this precaution.

EXAMINATION BY MEDICAL ATTENDANT.—Soon after the arrival of the practitioner, if labour has commenced, he requests through the intervention of the friend of the patient, or the nurse, to

make an examination,—“*to take a pain,*” as it is termed. This is frequently objected to; and from a false delicacy, the patient does not consent to his wish until obliged by the severity of her pains in a more advanced stage of the labour.

Now it is highly important that in the *earliest* stage of the process this examination should be made; for the medical attendant obtains necessary and valuable information, which regulates his conduct. Thus he ascertains whether labour has actually commenced, or if the pains are spurious or false pains only, requiring a plan of treatment for their relief, which he at once prescribes.* He is enabled to determine by it whether his assistance is necessary; whereas if it is deferred he might be the means of occasioning mischief, by being an idle spectator when he ought to be acting. And, moreover, it enables him to encourage his patient, not only by informing her how far she is advanced in labour, but, what is of much more importance, whether the position of the child is natural.

The medical man having intimated his wish to make this examination, withdraws from the bedroom to afford the patient an opportunity of placing herself upon the bed for the purpose proposed. Unfortunately she but too frequently takes a wrong position, and the medical man, upon his return to the bed-side, is necessarily obliged to rectify it,—

* See page 169.

a circumstance at all times painful to the mind of a delicate woman, and equally annoying and vexatious to the practitioner himself. The right mode is as follows :—

A lady should place herself upon her left side, at the foot of the bed, in such a manner as will enable her to fix her feet firmly against the bed-post ; her hips within ten or twelve inches of the edge of the bed ; her knees drawn up, and her body bent forwards. This position will bring the head and shoulders near the centre of the bed, and pillows must be placed to raise them to a comfortable height. The nurse should then throw a covering (a blanket or otherwise, according to the season of the year) over her mistress, the curtains should be drawn, the room slightly darkened, and a chair placed by the side of the bed for the medical man. By adopting the foregoing plan, the medical attendant is not even seen by his patient ; her feelings of delicacy are in no degree wounded, and as the inquiry itself yields such important information, and gives no pain, all rational ground of anxiety is obviated.

There exists a vulgar prejudice in the minds of some persons that these examinations are attended with great benefit, that they materially assist the labour, and expedite the termination of the patient's sufferings ; and she is therefore, naturally enough, continually looking for such supposed assistance. This is an injurious mistake ; for

frequent examinations are not only superfluous, but may materially retard or interrupt the processes of labour.

DIET. — This must be light and simple, and supplied from time to time in moderate quantities. Tea, coffee, broth, plain gruel, arrow-root — light nourishment of this kind is best. Under many circumstances, oranges and other sub-acid fruits will be found very grateful, and may be indulged in without hazard. Solid animal food is not admissible, and in fact very seldom desired.

Stimulants and cordials, such as wine, spiced gruel, &c., so much employed formerly, are now happily almost banished from the lying-in chamber. Given in liberal quantities they are productive of danger, disposing to fever or inflammation after delivery; and in smaller doses, they disorder the stomach, and often, instead of forwarding, retard the labour. If a small quantity of wine should at any period of the process be really required, the medical man alone can judge of its necessity, and he alone will give it.

The practice of urging women to eat and drink, *to keep up their strength*, is highly to be deprecated. What food is wanted will generally be asked for; but to load the stomach is not to nourish and strengthen the patient, and most certainly will in no degree expedite the delivery, but tend to protract it.

POSTURE, ETC. — The time occupied by the labour, if well managed by the attendants, may be relieved of much of its tediousness. Until the patient is advised to lie down for good by her medical attendant, she may be allowed to pass through this period in that posture most agreeable to herself. Walking, standing, sitting, kneeling, lying on the bed, will all be tried in turn, and there is not the slightest objection to this. Indeed, confining a patient even to her bed-room during this time is quite unnecessary: she will be more amused by being allowed a greater range; this likewise will be rather useful than otherwise, by changing the air as well as the scene.

The bed must not be too much indulged in; it heats, oppresses, and weakens the patient. If fatigued, she may lie down on the sofa; and should lie on her back, or right side, rather than the left, as this last must be her future position. It is too much the practice to keep the patient on the bed from the very first, thus adding to the tediousness of the labour, unnecessarily wearying and weakening the patient, and frequently inducing severe attacks of cramp in the side, thighs, or legs.

A patient may almost determine for herself whether it is necessary for her to keep to the bed or not. What is called the first stage of labour is by far the longest usually, — the pains being short and far between, becoming longer and more

frequent as the stage advances, but unaccompanied by any disposition to *bear down*; the latter circumstance being the striking distinctive mark between those of the first and second stage. Now so long as the pains are not bearing down, the patient may keep about, and with advantage. Care must, however, be taken throughout the whole labour that the patient is not kept *too much* on her feet. The attendants in the lying-in-room frequently err in this particular; and, by making the patient continually walk about, with the idea that it will expedite the labour, greatly fatigue and exhaust her, and inevitably delay and interrupt the process. If at any time there is a disposition to sleep, it should be encouraged. A little sleep, however short, refreshes the system, and is of great use in a labour. The cheerful conversation of a kind and judicious friend is almost as valuable, too, as repose; choosing, as she will, in the absence of pain, subjects totally unconnected with the situation of the patient.

It is a very common thing, during the earlier period of the labour, to hear the attendants importuning the patient to assist her pains, “to bear down forcibly,” — that is, to exert the muscles under the power of the will in forcing downwards. This is worse than useless. The fact is, that during the first stage of labour, the voluntary efforts of the patient are neither called for, nor

can be beneficial. They may exhaust her strength, but cannot advance the labour. By and by, however, she will find that she cannot withhold her exertions, — “that it is no longer a matter of choice, but of necessity,” — that she is *obliged* to bear down; *then* it will be useful.

The patient's mind is often depressed by being told, through the whispering of some injudicious friend, that her pains are unprofitable, — that they do no good. This statement, however, is never the fact. The pains may not be so effectual as we might wish them to be; but every one (during a natural labour), however slight, is useful in forwarding the process. “No person in labour ever had a pain, depending on her labour, which was in vain.” It has proved sometimes a very unfortunate circumstance when the attendants in a lying-in chamber have acquired the idea that the pains did no good, or were unprofitable. This has led to many improper practices, intended to encourage the pains; to the use of cordials and strong drinks, or to the exhibition of medicines supposed to have the effect of hastening delivery; by which it has often happened that a labour, which would have terminated easily and happily in a few hours, remains unfinished for many hours, sometimes for days.

The patient will complain, in the course of her labour, of great pain and *suffering in her back*, and will be very urgent to have pressure made in

order to alleviate the pain. This support, however, must be given with care; for it would seem that the degree of pressure made must sometimes tend to bruise the back, so powerfully is the hand pressed upon it. But the patient will be so desirous of having it made, and conceives that it so much relieves her, that it will be impossible to forbid it altogether.

PROBABLE DURATION OF THE LABOUR. — This must ever depend upon the circumstances of the individual case. A first labour, it must be acknowledged, is almost always slower than subsequent ones; but this is all, for I can confidently declare that, under proper management, there is not a jot more danger with a first than with future deliveries. This fact, then, when it does happen to be wearisome and tedious, ought to inspire confidence in the powers of nature, and in the skill of the medical attendant; and thus prevent both needless anxiety and injurious impatience.

The fact is, that all labours, whether a first or not, vary considerably in respect to duration. — There is nothing more uncertain than the time a labour will take. In the same woman the process shall have been accomplished with rapidity for three or four successive confinements, and then a tedious and protracted labour shall follow. This circumstance, however, does not necessarily in-

volve either difficulty or danger ; but in ninety-nine cases out of a hundred the slow labour is equally safe with the quick labour, provided no *meddling interference* is used, and nature is left to the secure, though it be slow, accomplishment of her object. And this is the point to which I wish to bring the serious consideration of the reader. The most universally popular, and at the same time most mischievous error that is met with in the lying-in room, is the notion that the power and effect of labour pains may be promoted by various means. It is supposed that the medical man can do this, and therefore he is frequently entreated, during the presence of a pain, to assist the patient. It is imagined that the patient can greatly aid by her own efforts, and therefore she is exhorted to bear down with all the force she is able to exert. And in the absence of pain, it is thought that the exhibition of hot and cordial nourishment will excite the pains and make them more vigorous, and therefore these are sometimes given, and liberally. Now all this is most mischievous, and diametrically opposed to the truth ; and indeed constitutes, in great part, the meddling interference to which allusion has just been made. Natural labour is a natural process ; and nature, in the execution of this wonderful and beautiful work, is not only perfectly competent to accomplish it for herself, but will not brook any interference. Resort, therefore, to the arti-

ficial means referred to — acting upon the popular error of giving assistance, and you will find, not only that you do not assist the labour, but that you arrest its progress, and invariably lay the foundation of difficulties which otherwise would never have arisen. If, then, you would prevent a perfectly natural labour from becoming a long and lingering one, (amongst other things,) avoid keeping your room too hot and too close; — avoid keeping too much in bed, or over-fatiguing yourself by too much walking; — avoid premature bearing down efforts; — avoid cordial and strong drinks, under the false idea of supporting your strength and increasing the frequency and power of your pains; — and, lastly, obey implicitly the advice and directions of your medical attendant. How much evil an attention to the last admonition would prevent, the physician-accoucheur can amply testify. Whether the lying-in woman be the inmate of a palace or a cottage, if things are to go on well, from the moment labour commences and the medical man enters the lying-in chamber, every thing ought to be guided by his judgment, and under his unlimited control. I say again, therefore, to the patient, and more particularly to the patient's attendants, pay a scrupulous regard to the wishes and directions of the medical attendant, and cause not a mischievous delay or increase of suffering where there need be none.

From all this it must have been seen that

generally it is quite impossible for a medical man to form an opinion worth any thing, as to the probable duration of any given labour. The incessant inquiries, therefore, made upon this point are in fact useless. Not so, however, the confident assurance that *all is going on well*. This ought ever to inspire the patient with confidence, and with that gentle and patient endurance, which, at such an hour, will prove of inestimable value to her.

CLOSE OF LABOUR. — When the labour is proceeding rapidly, and *the pains become bearing down*, as it is now far advanced, *the bed must be kept altogether*. This is what medical men call the second stage; and having arrived, the patient may assist somewhat with voluntary effort, viz. exerting her abdominal muscles and diaphragm; and to enable her to do this she must not scream, but during pain hold her breath. A cloth or jack-towel will also be fixed to the bed-post for her to pull by, or she will grasp the hand of another person. But this auxiliary ought not to be employed to pull by so much as *to fix* the trunk. And if the patient only follow the dictates of nature in this matter, she will do right; for she will find that all that is required is almost an involuntary exertion of voluntary muscles. Let her, however, be careful to make no straining effort in the absence of pain, during the intervals of which she ought to lie at perfect rest, renewing her strength. As the ter-

mination of the labour immediately approaches, the patient must be careful not to give way to feelings of impatience and become restless; but implicitly follow the directions of her medical attendant, otherwise serious consequences to herself might hereafter ensue. And now, if she have previously obeyed his instructions, she will be in possession of that strength and fortitude which are called for at this time, and prove invaluable.

The labour *completed*, the patient may turn slowly on her back, and the *broad bandage*, to which allusion has already been made, will be spread evenly, and pinned or buckled sufficiently tight around the lower part of the person to give a comfortable feeling of support. Sometimes a compress is put under the bandage: this should never be allowed, except under the direction and wishes of the medical man. I have known it produce, by its pressure, injurious consequences. The object of the bandage, as it is generally used by medical men, is simply to give moderate and equal support to the abdominal muscles, which have had the pressure from within suddenly withdrawn, and to prevent the uneasy sensations which would arise on their relaxed condition. For this purpose the addition of the compress is quite unnecessary.

A little tepid gruel may now be taken by the patient, and she should be left to rest. If disposed to sleep, she should indulge it; but if not, must

be kept perfectly quiet, and undisturbed by conversation. The importance of quiet and sleep immediately after delivery is not sufficiently regarded.

HOW TO PROCEED IF THE CHILD BE BORN BEFORE THE ARRIVAL OF THE MEDICAL ATTENDANT. — It not unfrequently happens, subsequent to a first confinement, that with some women their labours are so rapid and short (two or three strong and powerful pains being sufficient to bring the child into the world), that it is quite impossible for any medical man to get to them in time for their delivery. Under these circumstances, the friends are generally excited and alarmed. There is no occasion for this: still they ought to be acquainted with what is best to do.

If the patient is not already in bed, let her get upon it, as quickly as she can. Let her turn on her left side. Let the clothes be arranged, as far as time will allow, in the manner described before. And *when the child is born*, let the attendant take care so to place it, that there shall be a free access of air to its mouth. A few pains more may cause the after-birth to be expelled. If so, the cord may be tied and divided (of the mode of doing this I shall presently speak), — the child, wrapped in its flannel receiver, may be carried away from the mother to be washed or dressed, as may be most convenient. Next, the bandage must be

slipped round the patient, and being pinned sufficiently tight to give comfortable support, she must be left quietly to repose, until the medical man arrives. And all this must be done without hurry and bustle, or it will not be done well.

The child may be born, but the after-birth may not be expelled. If so, no nurse ought to be permitted to remove it. This hint cannot be too strongly borne in mind; for an injudicious interference with the after-birth may be attended with the most serious consequences. But, is the cord to be tied and the child separated, when this is the case? This must depend upon circumstances. If the patient is residing in the country, for instance, and a considerable time must elapse before the medical man can possibly arrive, if the child has cried or breathes vigorously, it may be done with safety. If, on the other hand, the medical attendant is shortly expected, the less done the better. Simply see that the infant has air; place it on its back.

And now with regard to *the mode of securing and dividing the cord*. Make two ligatures, each consisting of half a dozen threads of coarse thick cotton. Bring the cord within view, but be very careful not to expose the mother. With the first ligature tie the cord about three fingers' breadth from the child's abdomen; and place the second about three fingers further still from the child, and use just sufficient force to secure but not to

divide the cord with the ligatures. The navel-string may now be cut with a pair of scissors between the two ligatures, and the child taken away.

TWINS. — If there should happen to be twins, the mother (if possible) should not be made acquainted with the fact till both children are born. This is an established practice with medical men, as mischief might ensue from the apprehension with which the patient might contemplate the second labour. Unfortunately, however, the attendants in a lying-in room, taken by surprise (when informed by the medical man after the birth of the first of the existence of another child), often, by their incautious conduct, discover the fact prematurely to the patient. This, be it remembered, should ever be carefully guarded against for the patient's sake.

AFTER-PAINS. — About half an hour or so after delivery, a patient must expect pain again to occur. These pains, however, will differ from those which have just subsided; as they are not attended with bearing down efforts, and are accompanied by slight discharge: these are called "after-pains." They will continue off and on, with more or less frequency, severity, and duration, for about eight-and-forty hours. In this respect, however, they vary much in different in-

dividuals ; but, whether mild or severe, they must be borne with patience, and must not give rise to anxiety, since they are useful and salutary. If, indeed, they should be violent, they are under the control of medicine, which will be accordingly ordered for that purpose.

These pains rarely occur with first children.

SECT. III.—FROM AFTER DELIVERY TO THE TIME OF LEAVING THE CHAMBER.

ARRANGEMENT OF PATIENT'S DRESS, ETC.—The medical attendant having retired from the room, it sometimes happens that an inexperienced nurse proposes to make her mistress comfortable, and if allowed will change the linen about her person, and alter her position in the bed ; in effecting which she will perhaps lift her off the bed, or if not, place her in an *erect* or *sitting posture* upon it. Nothing can be so improper, or more likely to induce serious consequences. It is the duty of the medical man himself to leave his patient comfortable, as it is called, and it is in his power to do this, without running any risk, or altering her situation in the bed ; that is, if the previous directions about her dress have been attended to. Little things are often of great importance, and are sometimes found to be so when it is too late.

An hour, or an hour and a half, however, hav-

ing elapsed from the time of delivery, the necessary alterations about the bed and dress may be made. The soiled linen is to be removed, and the chemise and night-gown, previously folded around the chest, drawn down. The patient is then to be carefully moved to the upper part of the bed; in effecting which *the horizontal position is to be strictly preserved, and on no account, for one moment, must the mother be raised upright.* The patient herself must be entirely passive whilst this change is being effected; no effort must be made or assistance given by her.

These arrangements finished, the room must be slightly darkened; the most perfect quiet observed; no conversation, and, least of all, whispering, be permitted; the friend must guard the room from all intruders, — the nurse take the little one into the adjoining chamber, if the arrangements will permit it, — and the patient be encouraged to seek a long and refreshing sleep.

PASSING WATER.— About seven or eight hours after delivery the patient must make an attempt to pass water; and whilst this is to be done as nearly in the horizontal position as possible, there is no objection to her turning round upon her knees for this purpose, if it is found to be necessary.

If the labour has been tedious, there will sometimes be difficulty in evacuating the bladder. In

such a case, a cloth should be wrung out in warm water, and applied to the lower part of the stomach and external parts. If, however, the fomentations fail to obtain relief, then the medical man at his next visit must, without fail, be informed of the circumstance.

This inability occurs very frequently, and a lady should be very careful that she does not deceive herself in this particular. Passing a little water drop by drop does not empty the bladder; and if it be not emptied, the patient may rest assured that assistance is demanded. It would be a sadly mistaken delicacy which kept a patient from hiding such a circumstance from her attendant: even a very temporary concealment has often been most injurious; while prolonged delay has, in many instances, led to the most disastrous consequences.

THE BOWELS. — On the evening of the second, or morning of the third day, some aperient medicine should be taken; and this ought to be given though the bowels may have been previously moved, for they will be only *partially* relieved. Castor oil is the best medicine, and will generally be ordered. Fill two-thirds of a wine-glass with milk, coffee, or mint-water, and upon this pour a large table-spoonful of the oil, which may be thus swallowed without being tasted. If it does not have the desired effect after four or five hours, the

dose must be repeated. If the stomach will not retain the oil, some *mild* aperient draught may be substituted; for all drastic purgatives should be carefully avoided at this time.

The administration of an enema, consisting of a pint of warm gruel or barley-water, with two table-spoonfuls of castor oil, is certainly the preferable mode of acting on the bowels, provided the patient does not object to it. It is the lower bowel which is generally torpid at this time, from the continued pressure (for so many weeks) of the enlarged womb upon it, and the enema acts directly upon this part of the intestinal canal.

The repetition of aperient medicine, or the enema, during the time the patient remains in the lying-in room, will also be required: the perfect rest of the body induces a costive condition of the bowels, which must be assisted by some of the foregoing means.

THE DISCHARGE.— After delivery, a discharge commences, which is at first of a red colour, thin and watery. It soon, however, changes its aspect, and successively presents an appearance approaching to green, afterwards to yellow, and finally to soiled water. It varies in quantity in different females; for in some it is extremely scanty, whilst in others it is profuse. It seldom ceases before the expiration of a fortnight or three weeks: if, therefore, it *suddenly* cease at any time during this

period, this circumstance must not be disregarded as unimportant.

The liberal use of tepid milk and water as a *wash* during the existence of the discharge will be necessary, and will be productive of great comfort ; and let no lady permit the prejudices of the nurse to interfere and prevent this direction from being attended to. In general, the dictum of the latter personage on points like the present, however unreasonable it may appear, is received and submitted to, because she is supposed by her experience to be fully informed upon all such matters. It happened to me, when giving directions on this very subject, whilst in attendance upon a highly respectable lady during a miscarriage, to hear from her, that her nurse in the country never permitted any thing of the kind until a full fortnight after delivery, lest she should take cold. Was any thing ever more preposterous ?

This must be delicately and carefully managed by the nurse. The milk and water, as above, should be used three or four times a day for the first week, and gradually left off as the discharge diminishes. A nice soft sponge should be provided ; and the napkins must be changed sufficiently often, but applied just warm, as any sudden impression of cold might be mischievous. The nurse must effect all this without causing any change of the horizontal position, which is quite unnecessary, and so soon after the delivery always undesirable.

It is right to observe, that this discharge having proceeded healthfully for a week or so, will sometimes become *very profuse* ; and if not attended to, will continue thus for many weeks, seriously affect the patient's health, and perhaps prevent her from nursing her little one. The medical attendant should be early informed of this circumstance. This condition is but too frequently brought on by the diet and regimen being too stimulating for this period, or from the lying-in room being kept at too high a temperature ; or more frequently still, from the patient leaving the recumbent position too early.

Personal cleanliness, too, is of the utmost importance to the well-doing of the lying-in patient ; and although this remark may appear at first sight quite unnecessary, experience proves the contrary. In the lying-in room there is always a great fear of taking cold ; and this apprehension leads many women (the most careful at other times as to the condition of their skin) to forbear the usual measures of cleanliness : they are afraid. Now, inasmuch as for a longer or a shorter period subsequent to delivery there is always more than usual exudation from the surface of the body, so more than ordinary means should be taken for its removal, lest it become a source of injury. Frequent change of bed and body linen is all that is necessary at first ; but as soon as the patient can bear it, the whole surface of the person should be bathed by means of a

sponge with tepid vinegar and water, carefully drying one part before proceeding to another. The bathing the arms alone will be found to refresh and comfort the individual greatly : it may be commenced in this way. It must be done by the nurse carefully and quickly.

THE MANAGEMENT OF THE BREASTS. — The plan to be adopted in reference to the management of the breasts will depend upon various circumstances, and no general rules that may be laid down upon this subject will be without an occasional exception in the lying-in room. Their management, however, will chiefly depend upon whether it is a first or second confinement, or rather whether the individual has previously suckled a babe or not.

In a first confinement there is seldom any milk secreted before the third day, or even later. The milk ducts are generally impervious up to this time, and there has consequently been no discharge from the nipple. About the third day after delivery, however, and now and then a little later, the breasts become hard and swollen, and very soon painful. As the process of secretion proceeds, the breasts, more swollen than ever, appear to be made up of large extremely hard lumps or knots, and become very heavy and tender. After a time the milk is at "its height," as it is termed ; and if the breasts be fomented or gently pressed, a small quantity of

milk will be seen oozing from the nipples. If the infant is placed at the breast, the action of suckling will be attended with some degree of pain, but followed by considerable relief; and as the milk flows the hardness will diminish, the general swelling subside; and the milk being freely and frequently drawn off, the feelings of the patient will become more comfortable, and all pain removed: the breasts will be distended only when some hours have elapsed since they were drawn, and thus lactation will be established.

The treatment of the breast in this case is very simple. It should remain untouched until it begins to enlarge; about the third day. I do not believe putting the child to the breast at an earlier period does any good, and I am sure I have seen it productive of much evil. Nurses are too much in the habit of infringing this rule; and in consequence of the frequent application of the child's mouth to the nipple, and from its repeated and fruitless efforts to get that which really (at this time) does not exist, the nipple becomes hot, irritable, and tender, perhaps cracked; the mother exhausted and dispirited (for the fears of a young mother are soon excited, and she becomes apprehensive that she shall not have nourishment for the child); and the child itself is made fretful, and from its constant crying becomes a cause of distress and consequent mischief to the parent.

The fact of the nipple not being free, as nurses

call it, before delivery, is the cause why they consider the early application of the child subsequent to it so important, and that therefore they cannot apply the infant too early. This measure, too, they think necessary, lest the instinct of suckling should be lost if not thus indulged within a few hours after birth. There is some show of reason in the latter notion, but it is nothing more; for this instinct is readily preserved by means of the sucking bottle, which indeed is necessary, in order to supply the child until the breast milk is secreted.

Immediately the breasts are found to enlarge and the lumps to form, the nurse should gently rub them with warm almond oil. This must be done every four or five hours, and for four or five minutes at a time. As the breasts increase in size, but before they become distended, the child should be put to them after they have been rubbed: this will be generally about the fourth or fifth morning. At first little milk will be obtained; but by and by the supply from the breast will alone be sufficient to satisfy the demands of the infant. From this time the parent will have no further difficulty; she must, however, carefully dry the nipples after each time of suckling, lest they become sore and chapped; she should also guard them from pressure.

It will frequently happen that the breasts become so hard and swollen, that the infant expe-

riences considerable difficulty in drawing out the nipple. Various methods have been suggested to overcome this evil. The mode I always propose is as follows:—First, foment the hardened breasts with flannels wrung out in warm water,—or take small wooden bowls soaked in warm water, wrap them up in flannel, and then place them over each breast, or apply nicely made bread and water poultices. Any of these means will promote the easy flow of the milk. Having done this, let the nipple be drawn out either by a vigorous child of three or four weeks old — by a grown person — or by the following method:—Take a pint decanter, or a wine bottle with a smooth mouth; fill it to the neck with boiling water; pour out this water almost immediately; and, provided it is not too hot, apply the mouth of the decanter to the flattened nipple. As the decanter cools a vacuum will be created, and the nipple will be elongated in its neck; retain it thus a few minutes, when the bottle is to be gently removed by depressing it, and immediately apply the child.

Various kinds of breast pumps and other machines have been invented, but none answer the purpose so well as the simple warm bottle, the mouth of another child, or that of a grown person.

In a second confinement — that is, if the mother has previously been a nurse, — the circumstances connected with the secretion of the milk, and the

plan to be followed in reference to the breast will differ somewhat from that just detailed.

There is ordinarily, for two or three weeks prior to the occurrence of labour, an exudation from the nipples daily of a fluid somewhat resembling milk; and in the course of twelve hours subsequent to delivery, a prickling sensation is felt in the bosom, which gradually enlarging, a full supply of milk is produced in twenty-four hours.

Here then the time at which the child should be put to the breast differs from that in a first confinement; it must be applied at a much earlier period. It should be done within the first four-and-twenty hours after delivery. This will secure the drawing out of the nipple before any hardness of the breast occurs which may render it difficult, and will also encourage the flow of milk; for the very effort made by the infant to obtain it, will, under the present circumstances, excite its secretion.

As in the former case, the breast must be rubbed gently with the warm almond oil every time before the child is put to it; and, if it be necessary, the nipple must be drawn out by the means already suggested. In general, however, if common care is only employed, no difficulty whatever obtains in a second nursing.

If the patient should be so unfortunate as to have sore nipples, they must be treated as directed

in the chapter on the breast.* This is one of the most early and most troublesome attendants upon suckling. It frequently, however, arises merely from a want of due care, either before delivery or after it; and as frequently continues a source of great suffering and distress to the patient, who thus endures much more than is necessary, from a want of a judicious selection and persevering application of remedies.

VISITORS. — It is most important, through the whole of the lying-in month, that the body and mind of the patient should be kept perfectly easy. It has been already observed, that the lying-in apartment must be kept cool and well ventilated; it must also be kept quiet.

In reference to the admission of visitors, in a first confinement, I am always apprehensive of mischief; for it is then that the lying-in room is so attractive. The numerous relatives and friends all eagerly flock to the house, anxious just to see the young mother, and nurse the child. If this anxiety is indulged by the medical man, it never fails to be injurious. It matters not how well the patient may be,—the ordinary excuse upon which friends are admitted. It is not uncommon to hear them say, when the mischief is done, “Oh! we thought her so well that a visit could not pos-

* See page 244.

sibly be hurtful." It is always running a most unjustifiable risk; for the very pleasure that is experienced by the patient's seeing her young friends, under her present circumstances, is alone sufficient so to excite and disturb her system as to be productive of the most unfavourable results. It should ever be remembered that the most perfect quiet and repose are positively necessary to the well-doing of the patient: she must be seen but by one visitor — her medical friend.

The same precaution is equally necessary in future confinements; but as the situation of the lying-in patient is not now a novelty, and she herself is fully alive to the importance of solitude, rest, and the avoidance of all excitement, this point is generally strictly observed.

THE RECUMBENT POSTURE. — Although there can be no possible necessity for a lying-in woman, if doing well, to remain in bed after the fourth or fifth day, it is imperatively necessary that she continue in *the horizontal position* for a sufficient length of time after her delivery. The period required must ever depend upon circumstances, and a great diversity in this respect will be found to prevail in different individuals. No lying-in woman, however, should leave the recumbent position at all for the first two weeks, and but occasionally for the third week; and in some instances this position must be maintained much longer; at all

events it should be continued so long as any discharge remains.

Thousands have suffered during the rest of their lives from the very general and very reprehensible custom of indulging prematurely in an upright or sitting posture. The half-recumbent, half-sitting posture, too, has been productive of as great an amount of mischief. If the trunk of the body is not recumbent, it matters not where the extremities are placed; and yet women think if they do but keep the legs upon the sofa, that is all that is necessary.

Among the poorer classes of society, who get up very soon after delivery, and undergo much fatigue, the "falling down of the womb" is a very common and distressing complaint. It simply results from the fact that their situation in life does not allow them to remain in the recumbent posture long enough after their confinement. I cannot, therefore, too strongly endeavour to impress upon the recollection of the mother the importance of this hint.

Dr. Conquest, in his valuable "Outlines of Midwifery," remarks:—"In England, lying-in women are kept too long in bed, and sit up too early."

THE BANDAGE.—It has already been observed that a bandage wide enough to cover the whole length of the abdomen, is to be applied directly

after delivery. This must be worn gradually tightened day after day, as occasion requires, until the patient is permitted to move about, when a proper and nicely adjusted belt should be substituted for it. This support will afford great comfort in all cases, but especially to those mothers that have already had many children, or a few in quick succession, as also to short and very stout persons: to both the latter, indeed, its use is imperative; for if it be not adopted, inconveniences will be found shortly to arise very unseemly and annoying in their character.

This belt must be worn so long as the abdominal muscles appear to require its support, which in some cases will be a few weeks only; in others (in very fat and stout persons, for instance) it can never in future be dispensed with.

THE DIET AND GENERAL MANAGEMENT. — For several days after delivery the diet ought to be small in quantity, and more simple in quality than before labour. The sudden and great change in the habits and situation of the patient, from one of activity to the perfect quietude of the chamber, renders this necessary; as also the possible existence of a more or less excitable condition of the whole system, the effect of the labour. Not, however, that I consider the lying-in room a sick room, or approve of a very usual plan of treatment; for it is a frequent but very injurious prac-

tice with some nurses, for several days after delivery, to keep the bedroom curtains drawn close — to increase the number of blankets — and to be continually giving every thing as hot as it can be swallowed, deluging the patient's stomach with water-gruel and slops with a view to promote perspiration, and prevent her taking cold. This is the most direct way to produce the evil so much dreaded ; for it follows as a natural consequence, that by these means she is rendered more than ever susceptible to the impression of cold, is sure to be much debilitated, and a troublesome species of fever will be induced, which it will be found difficult to remove.

The simplest and best kind of diet at this time consists of coffee in the morning, a light pudding for dinner, coffee again, or tea, in the evening, and moderate quantities of gruel in the intervals — if the patient desire it ; and all other kinds of nourishment must be abstained from during these first three or four days.

As has been before observed, the body and mind of the patient must be kept perfectly easy, and the lying-in apartment cool, well ventilated, and free from visitors.

On the fourth or fifth day, if every thing is going on well, the patient may take the wing of a chicken, or, what is better, a mutton chop, and her beverage should consist of equal parts of barley-water and milk, which will allay thirst,

relieve any sinking of the stomach, and produce milk better than any thing else.

At this time, if it be the summer season, she may be removed from the bed — the heat of which is relaxing — to the outside of it, or to the sofa previously placed at the side of the bed ; but on no account must she give the slightest assistance in her removal, and when on the sofa must strictly keep the horizontal position for the reasons stated under the head “*Recumbent Posture.*” When this change is made, there must be no dressing,— putting on the stays, “for fear of taking cold,” as a lady once said to me. There will be no danger of this, provided the nurse has properly arranged the coverings of the sofa and the clothing of her mistress, when upon it. If it be winter, it will be better to delay leaving the bed until a few days later.

The sixth, seventh, and eighth days pass, and the ninth arrives : this is considered a very critical one by most lying-in women ; not that it is more so than any other. Such, however, is the popular impression, and perhaps no single prejudice prevails to a greater extent. Its existence would be harmless, except that now and then I have found it to cause an injurious anxiety in the mind of the patient. What can happen on the ninth day, that is not as likely to occur on the nineteenth, I know not.

After the tenth day it matters little whether the

patient remains in the lying-in chamber or not; if a sitting-room adjoins it, it is better for her to be wheeled into it for the day, returning in the evening to her chamber, the atmosphere of which will thus be preserved purer and more refreshing to sleep in. This plan, however, can only be adopted where the bed-room opens into a sitting-room, as it would be quite out of the question to remove the patient through any passage, or to another floor. And she should be wheeled from her bedroom *lying* on the sofa — not *walk* from it.

It is never safe for her to join the family circle before the expiration of the third week, — and the month from her delivery having terminated, if all be going on well, she may gradually resume her accustomed duties, and go out of doors without risk.

Before I conclude this part of the chapter, I must answer a very important question which would naturally be asked here — Is a nursing woman better with or without wine or beer? I am growingly convinced that *a healthy woman* is better without either, both for herself and for her child. Her own health will be less likely to become deranged; her own feelings and sensations will be infinitely more equal and comfortable; and the milk secreted in her bosom will be more pure and nourishing; and as a consequence of all this, her child will thrive and flourish better without the stimulant than with it. During the time such

a person remains in the lying-in room, and indeed until she can take active exercise in the open air, some increase in the amount of beverage will be found necessary, and the best she can take is the barley-milk already referred to. A tumbler of this occasionally in the day will meet the necessities of the case far better than any thing else; and this, or milk, in varying quantities, it will be found useful, and in most cases necessary, to continue, throughout nursing.

Is wine or beer then, it will be asked, never useful to the nursing woman? Yes, certainly. I have seen the bitter ale, for instance, taken in moderate quantity, of great service to the woman not of strong constitution, and yet without disease. But will all such be thus benefited? Certainly not. Trial must be made, and the individual must interrogate her own sensations and experience; and if the effect is favourable, let her continue it — if, on the other hand, its use is followed by evident disturbance and discomfort, it is manifestly unfit for her, and she must discontinue it.

One of the most eminent, observing, and practical physician-accoucheurs of the present day fully corroborates this opinion. In his work already referred to, Dr. Conquest observes:—"Unless the state of the health requires wine or beer, most nurses who have good sense enough to try, will find the comfort of their feelings best consulted, their constitution best supported, and the improve-

ment of their infants most rapid, when they avoid spirits, wine or beer, and drink milk as their ordinary beverage. Some women may require a draught of good ale twice a day, but the cases are rare."

On this subject I shall speak more fully in the Chapter on Nursing, to which I must refer the reader.

PART II.

Referring to the Child.

 SECT. I. — THE MANAGEMENT OF THE CHILD
DIRECTLY AFTER ITS BIRTH.

WASHING.—The infant being born, the medical man ties the navel-string, divides it, and then places the child in the piece of flannel called a receiver. It is now to be warmly wrapped up in this by the nurse, and if it be cold weather, to be carried to the neighbourhood of a good fire, though not in front of it. The necessity of attending to the warmth of the infant is evident ; for being accustomed, during its uterine existence, to one uniform temperature, and that a warm one, exposure to a cold atmosphere would be attended by injury.

The first thing to be done is to *wash* the child. This may be proceeded with immediately, unless, as is sometimes the case, and especially when the labour has been at all premature, the child is found to breathe with difficulty, and shows other signs of feebleness. In this case, it must be allowed to remain perfectly quiet and undisturbed, until it breathes freely and strongly, and appears more

active and lively. On the other hand, if this be the case from the first, the washing may be proceeded with as soon as it conveniently can.

The body of the child will be more or less covered with a white, greasy, curd-like substance; particularly about the eyelids, groins, armpits, and various folds of the skin. This adheres very closely, and, unless proper means are employed, is difficult to remove. It is important, however, that the skin should be carefully and thoroughly cleansed of it; for, if allowed to remain, it dries, hardens, and irritates the surface, and sometimes produces severe excoriations. Water will not act upon it, and soap has very little effect; lard however renders it soluble. Smear the whole of the body, therefore, first of all, with fresh lard. Then put the child into warm water (from 96° to 98° Fahrenheit), and after five or six minutes, wash the body, while still in the bath, with a soft sponge, and the least irritating soap you can get. In this way the surface will be cleansed most readily, and, generally, perfectly: if, however, here and there, the nurse finds it difficult to get off any remains of the secretion, she must not be over-anxious to do so, lest, by her over-rubbing, she irritate and inflame the skin; she must wait until the next washing, when it will be easily freed from it. Always use *warm water*. Some persons advocate the employment of cold water, under the impression that it is calculated to harden and invigorate

the infant. This is a most hazardous and cruel experiment. The infant has experienced hitherto but one uniform degree of temperature, and that a very warm one; suddenly, therefore, to subject it to a cold bath is to give a shock to its nervous system, which might be attended with the most serious consequences.

The infant should be washed *in the bath*, and not on the nurse's lap; and it would be well if the same kind of bath were employed for this purpose which is used in Germany. It is thus referred to and recommended by Dr. Combe in his excellent work on the Physiological and Moral Management of Infancy:—"As the bones of the infant are so soft as to be incapable of sustaining its own weight in any thing approaching to an erect or sitting position, and it cannot be held up by the hand without inconvenient pressure, it will answer still better to make use, as is done in Germany, of an oval-shaped, shallow, wooden bath, with a raised portion at one end for the head, and containing a quantity of water just sufficient to cover or float the child. By this plan, every part of the body is effectually protected from cold; while the position of the infant is that which is best suited to its natural feebleness of structure, and which admits most easily of the head and face being thoroughly washed, without any risk of the impure water running into its eyes." The latter remark leads me to throw out the caution,

that the same water which is used for the rest of the body must not be employed for the face, as there is danger lest the impurities which were washed off from the skin should get into the eyes, and produce a dangerous inflammation of those organs,—a disease which is of frequent occurrence, and sometimes fatal to vision.* Neither must spirits of wine, brandy, or any thing of the kind be put into the water with which the head of the child is washed. This is done, I believe, under the impression that it prevents the taking of cold. It however answers no good purpose, and may do harm.

Upon the child's being taken out of the bath it should be laid upon a pillow, previously covered with warm napkins, on the nurse's lap, for the purpose of being dried. This plan is far preferable to the one usually adopted, of keeping the infant tumbling about on the nurse's knees in every conceivable change of position.

PUTTING UP THE NAVEL-STRING AND DRESSING.—The surface of the child's body having been thoroughly dried with soft and warm towels, the next thing is to put up the remains of the navel-string. Having been examined by the medical man previous to his leaving the chamber, it is presumed that its vessels are properly secured; and it is now to be protected from injury,

* See page 235.

until it separates from the body of the child, — an occurrence which usually takes place somewhere between the fifth and fifteenth day from delivery. The mode is as follows :—A piece of soft old linen rag doubled, and about four or five inches in diameter, is to be prepared, and a circular hole cut in its centre, through which the cord is to be drawn. The cord being carefully folded up in this envelope, is to be laid on the abdomen of the child, and secured by what is called the belly-band, viz. a band of thin flannel, five or six inches broad, and long enough to go twice round the body. Care must be taken that this is not drawn too tightly. It would interfere with the breathing and digestion, and tend to promote rupture. You should be able easily to pass your finger under it. It is right to continue the application of this bandage for at least five or six months ; and even then it should by no means be left off if there is any disposition to laxity or weakness of parts about the navel. This must always be most carefully looked to. I believe most of the cases of rupture at this part arise from a careless application from day to day of this belt, and from its being too early left off. It should be fastened by the needle and thread, pins being always objectionable in any part of an infant's dress.

The child is now to be dressed.—About this it

is unnecessary to say more here* than that the dress should be sufficiently warm, light, and loose, and not calculated to place the slightest restriction upon the movements of the child's limbs. In reference to the head-dress, a thick muslin cap is all that is required; and more than this, or any thing that shall compress or restrain the free motion of the child's head, is highly injurious.

It will sometimes happen that the child is exceedingly feeble at birth, or may be prematurely born; in either case it will require the greatest care and watchfulness on the part of the attendants. I believe that the frequent low moanings and cries of such infants arise chiefly from their susceptibility to impressions of cold, being unable to maintain sufficient animal heat, and that they are frequently lost from the want of attention to this point. I always order such children, after the washing is completed, to be clothed in flannel from head to foot, the face only exposed, the little hands requiring the covering quite as much as any other part of the body; and when dressed to be placed in the mother's bosom, and not in the cradle, and kept there as much as possible. It is even very advisable for a mother under these circumstances, particularly if it be the winter season, to remain in bed for a longer period than she otherwise would, for the sake of her little one, as

* Further directions will be found in Chapter IX. Section "Clothing."

the animal heat is much better preserved in this way than in any other. I lately attended a lady, prematurely confined at the seventh month, who was delivered of twins, one of whom was born alive. As may be supposed, the child was exceedingly diminutive in size (the more so from being a twin), and of very feeble power; but contrary to the expectation of all the friends, was successfully reared, and I believe owing to the careful following out of the above suggestions. Warmth, and good, wholesome, nourishing breast-milk, are the two grand requisites in these cases.

MEDICINE AND PUTTING THE INFANT TO THE BREAST. — As soon as the infant is dressed, many nurses are in the habit of dosing it with castor oil, or honey of roses and almond oil. This is objectionable on many accounts: it is quite uncalled for so early, and it may be altogether unnecessary if they only wait. The infant should at once be put quietly to sleep in a cot or bed, so situated that it shall not be exposed to draughts of cold air, and that the eyes of the babe shall be protected from a strong light, which as yet they are unable to bear. It should then be allowed to repose for some hours; when the mother having also obtained some sleep, it is proper to place the child to the breast, *provided the patient has at some former time performed the office of a nurse.* This should always be done within the first four-

and-twenty hours, for the reasons before stated; viz. partly to draw out and form the nipple before any hardness of the breast occurs and renders that difficult, and partly to encourage the flow of milk; for the very effort made by the infant to obtain it will in this case excite its secretion.

It has been supposed by some that the milk first secreted is improper for the child, — that it teases its bowels. The fact is, that it differs in an important quality from that which is soon after secreted; but then it is a difference which nature has ordained and designed for a wise purpose. For the bowels of the little one when born are loaded with a dark black secretion, of which it is essentially necessary they should be relieved. Now the means for its removal are found in the aperient qualities of the milk which is first secreted in the breast of the patient; so that instead of being injurious when the child is allowed to take it, it is highly necessary. Should the child, however, not get the first draught of the mother's breast from being put to a wet-nurse, or from any other cause; or should the abdomen, some five or six hours after birth, become full, the child fretful, and no evacuation take place, — under these circumstances, the administration of a gentle purgative is not only justifiable, but called for. Half a tea-spoonful of castor oil is the best that can be given.

It is unnecessary for the child to take any

nourishment until ten or twelve hours after birth. Usually, at this time, the mother will be able to supply it with its natural nutriment; should not this, however, be the case, as will always happen with first labours, the child must be fed every three or four hours or oftener, with a small quantity of fresh cows' milk and water, sweetened with sugar;—two thirds milk and one third water. This is to be continued till lactation is fully established; after which the infant must obtain its nourishment from the breast alone. For the first week or ten days, as the stomach will be feeble and unaccustomed to food, the child will take but little at a time, but it will require to be nursed the more frequently. There can therefore be no fixed periods for nursing at the commencement of suckling; the appetite of the infant must be the mother's guide, taking care, however, to allow the appetite to appear before the breast is offered, and not to attempt to provoke it.

At the expiration of this period the suckling should be performed during the remainder of the lying-in month at regular intervals of about four hours during the night as well as day. During sleep the nipple ought not to be allowed to remain in the infant's mouth, as is too often the case; nor, during the day, should the child be put to the breast every time it cries, to quiet and soothe it. Both much interfere with the health

of the infant; the stomach is kept constantly loaded, and unable therefore to digest its contents;—time must be given for this purpose, and an interval of four hours is not too much. A child thus nursed will be found less troublesome and peevish than one that is hushed by the breast at every cry, and will awaken with great regularity as the time for its meal approaches. After the lying-in month the night nursing should be given up, and the child placed in charge of its nurse.*

SECT. II. — DIRECTIONS FOR CERTAIN ACCIDENTS AND DISEASES WHICH MAY OCCUR TO THE INFANT.

STILL-BORN. — The child may be born long before the arrival of the medical man, and the question then arises what is to be done? Nothing, if he is near at hand, except allowing a free ingress of air to the child's mouth to prevent suffocation. If, however, medical assistance cannot be obtained for some time, then the cord may be divided, provided the child cry or breathe vigorously. This is to be effected by first tying the navel-string with common sewing thread, three or four times doubled, about three inches from the body of the child, and again three inches from the former ligature, and then dividing the cord with

* See "Rules for nursing the Infant," p. 266.

a pair of scissors between the two. The *after-birth* and everything else should be left, *without interference*, till medical aid can be given.

But sometimes the child comes into the world apparently dead, and unless the most active exertions are made by the attendants, is certainly lost. The superintendence of the means used devolves upon the medical man; but it would be often well if his assistants were already acquainted with the measures pursued under these circumstances, for they would be more likely to be carried into effect, with promptitude and success, than they now frequently are. And again, the still-born child is frequently in this state from having been born very rapidly, and before the medical man can have arrived; it will therefore be more especially useful, in such a case, that the attendants in the lying-in room should know how to proceed.

The various causes producing this condition it is unnecessary to mention.

The condition itself may exist in a greater or less degree: the infant may be completely still-born, with no indication of life, except, perhaps, the pulsation of the cord, or a feeble action of the heart; or it may make ineffectual efforts at breathing, or even cry faintly, and yet subsequently perish from want of strength to establish perfectly the process of respiration. Under all these circumstances a good deal can often be

effected by art. In every instance, therefore, in which we have not positive evidence of the child's being dead, — in the existence of putrefaction, or of such malformation as is incompatible with life, it is our duty to give a fair trial to the means for restoring suspended animation; and as long as the slightest attempt at motion of the respiratory organs is evinced, or the least pulsation of the heart continues, we have good grounds for persevering and hoping for ultimate success.

The measures to be employed to restore a still-born child, will be a little modified by the circumstances present.

If there is no pulsation — no beating in the cord, when the child comes into the world, the ligatures may be applied, the cord divided with the scissors (as already described), and then the means for its restoration made use of detailed below — viz. inflation of the lungs, and perhaps the warm-bath. If, with the above circumstances, the child's face be livid and swollen, some drops of blood should previously be allowed to escape before the ligature is applied to that part of the navel-string which is now only attached to the child.

If there be pulsation in the cord, while respiration is not fully established, it must not be divided; and, as long as pulsation continues, and the child does not breathe perfectly and regularly, no ligature should be applied. The first thing to be done here is to pass the finger, covered with the

fold of a handkerchief or soft napkin, to the back of the child's mouth to remove any mucus which might obstruct the passage of air into its lungs, and at the same time to tickle those parts, and thereby excite respiratory movements. The chest should then be rubbed by the hand, and a gentle shock given to the body by slapping the back. If these means fail, the chest and soles of the feet must next be rubbed with spirits, the nostrils and back of the throat irritated with a feather previously dipped in spirits of wine, and ammonia or hartshorn may be held to the nose. And now, if these means are unsuccessful, and the pulsation in the cord has ceased, the *infant* must be *separated*, and inflation of the lungs resorted to.

Inflation of the lungs. — This is to be effected gently and cautiously as follows: —

The child, wrapped in flannel, is to be laid on its back upon a table placed near the fire. Its head is to be slightly extended, and the nostrils held between the fingers and thumb of one hand, whilst with the fingers of the other slight pressure is to be made upon the pit of the stomach, so as to prevent the air from passing into that organ. The lungs of the child are now to be filled with air, by the operator applying his own lips—with a fold of silk or muslin intervening, for the sake of cleanliness—to those of the child; and then, simply blowing into its mouth, he is to propel the air from his own chest into that of the infant.

Previously, however, to his doing this, he should make several deep and rapid inspirations, and finally a full inspiration, in order to obtain greater purity of air in his own lungs.

When the chest of the child has been thus distended, it is to be compressed gently with the hand, so as to empty the lungs; and in this way the inflation, with the alternate compression of the chest, must be repeated, until either the commencement of *natural respiration* is announced by a sneeze or deep sigh,—or, until *long-continued, steady, persevering*, but unavailing efforts to effect this object, shall have removed all ground of hope for a successful issue.

Whilst these efforts are being made, some other individual must endeavour to maintain or restore the warmth of the infant's body, by gently but constantly pressing and rubbing its limbs between his warm hands. And after respiration is established, the face must still be freely exposed to the air, whilst the warmth of the limbs and body is carefully sustained.

It will sometimes happen—and to this circumstance the operator should be fully alive—that when the child begins to manifest symptoms of returning animation, its tongue will be drawn backwards and upwards against the roof of the mouth, filling up the passage to the throat, and preventing further inflation of the lungs. This is to be remedied by the introduction of the fore-

finger to the upper and back part of the child's tongue, and gently pressing it downwards and forwards, by which the difficulty will be removed, and the air again passes.

The warm bath. — More reliance may be placed upon the above measure to restore animation, than upon the warm bath. Still this is sometimes useful, and therefore must not be neglected. Whilst inflation is going on, the bath may be got ready; then resorted to; and, if unsuccessful, inflation may, and ought again to be followed up. If the bath is useful at all, it will be so immediately upon putting the infant into it,—respiration will be excited, followed by a cry; and if this does not occur at once, it would be wrong to keep the child longer in the bath, as it would be only losing valuable time, which might be devoted to other efforts. The temperature of the bath should be about 100°; and if, upon plunging the infant into it, it fortunately excite the respiratory effort, it should then be taken out, rubbed with dry but hot flannels; and when breathing is fully established, laid in a warm bed, or, what is still better, in its mother's bosom,—letting it, however, have plenty of air.

We should not relinquish our endeavours at resuscitation under two or three hours, or even longer; and if ultimately successful, the state of the infant should be carefully watched for two or three days.

INJURIES RECEIVED DURING BIRTH.—If a labour be long and tedious, the head and body of the child may be bruised and disfigured.

The shape of the head is frequently altered by the compression it has undergone; so that it may be elongated, and measure from the chin to the back of the head as much as six or seven inches. This always excites surprise, sometimes apprehension, in the minds of the attendants: there is no ground for it. It must be allowed to regain its natural shape without interference.

Tumours or swellings upon the head are very common. They arise from pressure upon the part during the labour. The only treatment that is required, or safe, is freedom from all pressure, and the application of cold lotions composed of brandy or vinegar and water. The swelling will gradually subside. It will be right, however, to direct the attention of the medical man to this circumstance.

The *face* may be frightfully disfigured from the above cause, exceedingly black, and the features distorted. Nothing is necessary here; in a few days the face will recover its proper appearance.

RETENTION OF URINE.—Occasionally an infant will not pass any urine for many hours after its birth. This most frequently arises from the fact of none being secreted. In the last case of this kind that I was called to, three days had

elapsed since birth, and no urine had been passed ; it proved that none had been secreted. Sometimes, however, it is the effect of another cause, which the use of the warm bath will be found to remove, and this should always, therefore, be employed four-and-twenty hours after the birth of the infant, if it has not by that time passed any water.

It now and then happens, but fortunately very rarely, that some physical obstruction exists. It is always important, therefore, for the nurse to pay attention to the above point ; and it is her duty to direct the attention of the medical man to the subject, if any thing unusual or unnatural be present. The same observation applies to the *bowel* also ; and if twelve hours pass without any motion, the parts should be examined.

SWELLING OF THE BREASTS.—At birth, or two or three days subsequently, the breasts of the infant will frequently be found swollen, hard, and painful, containing a fluid much resembling milk. Nurses sometimes endeavour to squeeze this out, and thus do great mischief ; for by this means inflammation is excited in the part, and occasionally abscess is the result.

If the breasts are simply slightly enlarged, it is unnecessary to do any thing more than rub them two or three times a-day, and very gently, with warm almond oil, and a little time will restore them to their proper size.

If, however, they are inflamed, hot, painful, with a red surface, and unusually large, a bread-and-water poultice must be applied every three or four hours, which will generally prevent either the formation of matter, or any other unpleasant consequence. In a few days, under this treatment, they will usually subside, and be quite well.

DISCHARGE FROM THE EYES.—About the second or third day after the child's birth, an inflammation sometimes attacks the eye, which is of considerable consequence; the more so, from its commencing in a way not calculated to excite the attention, or alarm the fears, of the mother or nurse. The child cannot express its sensations, and the swelling of the eye conceals the progress of the disease; so that serious mischief is frequently done before the medical man sees the patient. In the first place, the inflammation is not immediately noticed; and in the second, the measures employed are frequently insufficient to check its progress: hence it causes more blindness (I refer to the lower classes of society more particularly) than any other inflammatory disorder that happens to the eye; and the number of children is very considerable whose sight is partially or completely destroyed by it. The parent and nurse are apt to suppose, when this inflammation first appears, that it is merely a cold in the eye, which will go off; and the consequences

which I have just mentioned take place, in many cases, before they are aware of the danger, and before the medical man is resorted to for assistance.

I only desire, in mentioning this complaint, to inform the attendants of the lying-in room of its great importance, that it may not be trifled with, that upon its first approach the physician may be informed of it, and that the treatment he directs for its cure may be sedulously and rigidly followed.

Symptoms. — The inflammation commonly comes on about three days after birth; but it may take place at a later period. It may be known by its commencing thus:—When the child wakes from sleep, the eyelids will be observed to stick together a little; their edges will be redder than natural, and especially at the corners; the child experiences pain from the access of light, and therefore shuts the eye against it. A little white matter will also be observed lying on the inside of the lower lid. After a short time the lids swell, become red on their external surface, and a large quantity of matter is secreted, and constantly poured from the eye, the quantity of discharge increasing until it becomes very great. But enough has been said to point out the importance of the disease, and the signs by which it may be recognised at its first approach.

Treatment. — Keeping the eye free from dis-

charge, by the constant removal of the matter secreted, is what the medical man will chiefly insist upon; and without this is done, any treatment he may adopt will be useless: with it, there is no doubt of a successful issue of the case, provided his attention has only been called sufficiently early to it.

HARE-LIP. — This is a blemish too well known to require a formal description. The questions most interesting to the mother in relation to it are,—How is her child to be nourished that is born with it?—and when ought an operation to be performed for its removal?

The mode of feeding the infant.—If the defect is but trifling, the infant will be able to suck, provided the mother's nipple is large, and the milk flows freely from it. If this is not the case, the difficulty may be obviated by using the cork-nipple shield. I have known this to answer the purpose admirably, when the mother had previously despaired of nursing her infant, from the nipple being too small for it to grasp it.*

If, however, the defect exists in a still greater degree, feeding by means of the spoon must be resorted to; the greatest care being necessary as to the quantity, quality, and preparation of the food.†

* See page 248.

† See "Artificial Feeding," p. 299.

Caution in reference to the operation. — With regard to the operation for the removal of this deformity, I would strongly warn parents against desiring its too early performance. Various considerations contribute to make the distressed parents wish this. But very seldom indeed — except the deformity be very great, and implicating other parts beside the lip — will the operation be required, or ought to be resorted to, before the second year and a half of the infant's life; and for this very cogent reasons exist. Convulsions may thus be induced, which often terminate fatally.

The most proper age for removing this deformity by operation is from two years and a half to four years.

BLEEDING FROM THE NAVEL-STRING. — Bleeding from the navel-string will sometimes take place hours after it has been supposed to be carefully secured. This will arise either from the cord being carelessly tied, or from the cord being unusually large at birth, and in a few hours shrinking so much that the ligature no longer sufficiently presses on the vessels. In either case, it is of importance that the attendants in a lying-in room should understand how to manage this accident when it occurs, that it may not prove injurious or fatal to the child.

The mode of arresting the bleeding. — The clothes of the child and the flannel roller must be taken

off; the whole cord without delay must be unwrapped; and then a second ligature be applied below the original one (viz. nearer to the body of the infant), taking great care that it shall not cut through the cord when drawn very tight, but at the same time drawing it sufficiently tight to compress the vessels.

The ligature should be composed of half a dozen threads of coarse thick cotton, and not of tape or bobbin, or any substance of this nature, as it cannot be relied on for this purpose.

ULCERATION, OR IMPERFECT HEALING OF THE NAVEL. — The cord separates from the navel generally some time between the fifth and fifteenth day from delivery, and the part usually heals without giving the slightest trouble.

This, however, is not always the case, for sometimes a thin discharge will take place; and, if the part be examined, will be found to proceed from a small growth about the size, perhaps, of a pea, or even less. This must be removed by applying a little powdered alum, or, if necessary, it must be slightly touched with blue-stone; and afterwards dressed with calamine cerate.

At other times, though fortunately very rarely, excoriation of the navel and the parts around takes place, which quickly spreads, and assumes an angry and threatening character. If, however, the attention of the medical man is called to it early

it will always do well: until his directions are given, apply a nicely made bread-and-water poultice.

BLEEDING FROM THE NAVEL. — Sometimes a day or two after the cord separates, or at the time of separation, bleeding takes place from the navel. Fortunately this very seldom occurs; and I only mention it to observe that, upon its occurrence, the point of the finger should be placed over the part, and pressure steadily applied until medical assistance is obtained.

Now and then, in these cases, a growth sprouts up and bleeds. Let this be touched with lunar caustic, or any other astringent application, or let pressure be employed, still it will bleed, — not freely or in a stream, but there will be a constant drain from the part; and the infant, as a consequence, will waste and be brought to death's door. Excise it, it will only make matters worse. The treatment in this case consists in simply winding a piece of very narrow tape round the growth, and leaving it untouched. The bleeding will soon cease; the fungus will sprout over the upper margin of the tape: in a very short time it will, as it were, strangle the disease, and the fungus subsequently falling off, a complete cure is accomplished.

JAUNDICE. — It frequently happens, during the

first or second week after birth, that the skin of the child becomes very yellow, and it has all the appearance of having the jaundice. This gives rise to great distress to the parent when she perceives it, and she becomes very anxious for the medical man's next visit.

Now, ordinarily, it is of no consequence, commonly disappearing spontaneously, and requiring no medical treatment. If, however, it does not go off in two or three days, a tea-spoonful of castor oil should be given once, or oftener, if necessary.

It is of course possible for an attack of real jaundice to occur at this early period, and a disease of a very serious nature will then have to be dealt with; but, except as a consequence of malformation (a very infrequent occurrence), it is not likely to arise; and therefore jaundice during the first and second week after delivery need not excite alarm.

TONGUE-TIED. — This arises from the bridle under the tongue being so short, or its attachment to the tongue extended so near the tip, as to interfere with the motions of the organ in sucking, and, in after years, in speaking. It is *a rare occurrence*, although nothing is more common than for medical men to have infants brought to them supposed to be labouring under the above defect.

How its existence may be determined. — The best guide for a parent to determine whether it exist or

not, is for her to watch whether the infant can protrude the tip of the tongue beyond the lips; if so, it will be able to suck a good nipple very readily, and nothing need or ought to be done. No mother would unnecessarily expose her infant to an operation, which, unless very carefully performed, is not altogether unattended with danger; and, if she suspects any defect of this kind to exist, she has only to observe the circumstance mentioned above to satisfy her mind upon the subject.

MOLES AND MARKS ON THE SKIN.—The supposed influence of the imagination of the mother, in the production of the above appearances in the texture of the skin of the infant, has been fully discussed in the first chapter. We have now to inquire into the probable effect of their presence upon the health of the child.

They may be divided into two classes: the brownish mole, and claret stain; and small but somewhat elevated tumours, either of a dark blue livid colour, or of a bright vermilion hue.

Moles and stains.—They are of no importance, as far as the health of the infant is concerned. If situated in the face, however, they frequently cause great disfigurement, as the claret stain, which may be seen sometimes to occupy nearly half the face. But they happily do not increase in size, remaining stationary through life; and as any operation that might be proposed for their

removal would only cause an equal, if not greater deformity, they ought to be left alone.

Coloured spots or tumours.—These vary in their number, size, and situation. The same child is sometimes born with many of them. They may be as small as a pea, or as large as a crown piece. They are not only found on the skin, but on the lips, in the mouth, and on other parts of the body.

These also sometimes remain stationary in their size, having no tendency to enlarge; unless, indeed, they are subjected to friction or pressure. But as they frequently require surgical aid,—in which case, the earlier the application of remedial measures the less severe in their kind, and the greater the probability of a speedy and successful result,—so is it *always* important for the mother *early* to obtain a medical opinion, that the measure of interference or non-interference may be decided.

CHAPTER VII.

OF THE BREAST.

SECT. I. — SORE NIPPLES.

THEIR PREVENTION. — Many things may be done to prevent sore nipples, one of the most painful and troublesome circumstances that can arise during suckling.

Prior to confinement, and especially in a first pregnancy, more particularly where the nipple is small, and the skin covering it thin and delicate, the nipples should be prepared for suckling. This must be attended to during the last six weeks. The mode to be adopted, however, has already been pointed out in the first chapter, and the reader is referred to the directions there given.*

After delivery has taken place, it is a common error to put the infant too early to the breast. In a first confinement no milk, usually, is secreted until after the third day, and the almost universal practice of continually putting the little one to the breast before this period has transpired, can only do harm. It chafes, heats and irritates the nipple, and frequently renders it unfit for use when the milk really does come. This remark,

* See page 33

however, does not apply to subsequent confinements.

Then, after suckling is fairly commenced, if you would prevent sore nipples, you must not allow the child, during the night, to have the nipple constantly in its mouth—a very common and injurious practice. It not only causes sore nipples, but is frequently seriously injurious to the infant's health.

And lastly, if after two or three days' nursing you find the nipples at all disposed to get tender, before they become sore, resort to the use of the metallic shield.* During the last eighteen months I have given these shields a fair trial, and in almost every case have found them successful in *preventing* sore nipples. To be of any avail, however, they must be used before anything like a sore or crack takes place; for whilst they will prevent sore nipples, they will not cure them. They are to be constantly worn in the intervals, between the acts of nursing, and for the latter object are to be removed, and the nipples *carefully* washed before the infant is put to the breast. Any one who has suffered in previous nursings, should wear these shields from the day after her delivery.

MEANS OF CURE.—1. *If they are tender and*

* They are called "White's Metallic Shield," and may be obtained at Maw's, 11. Aldersgate Street.

fretted, exquisitely painful to the touch, and also very hot and dry, but not chapped, apply a bread-and-water poultice every four hours, fomenting the part with warm water, or the decoction of poppy-heads every time it is renewed. And when the unnatural heat and great pain of the nipple is relieved, apply, when the child is not at the breast, the metallic shield.

2. *But the skin of the nipple may have become excoriated, or a crack may have taken place at its junction with the breast,* and every time the infant sucks, the nipple bleeds, and the mother suffers exquisite pain.

The treatment here consists, *first*, in the adoption of some means by aid of which the milk may be drawn by the child without its lips and tongue coming in contact with the nipple; and, *secondly*, in the application of remedies for the cure of the excoriation or crack.

To accomplish the first object, shields made of glass, wood, ivory, or silver are used; and the shield being covered with an artificial or prepared cow's teat, the child sucks through this, without biting or irritating the nipple. This contrivance, however, frequently fails, not because it is not good, but because it is badly managed. It sometimes does not succeed, because a shield of the proper size is not selected; the nipples of different women varying much in size. Be sure, therefore, that the shield is of the precise

magnitude required. One too small would completely defeat the object, preventing the flow of milk, and aggravating the sores; and, on the other hand, one too large, although it might not hurt the nipple, would, by preventing a complete vacuum, render the infant unable to draw the milk. The failure, in either case, is naturally laid to the shield. Again, care should be taken that the teat is sewn properly on the shield. Its extremity should not extend beyond its apex more than half or three quarters of an inch; for if it projects more, the child will get the teat between its gums, press the sides of the teat together, and thus prevent the passage of the milk through it. The teat should also closely cover all the orifices to which it is stitched; for if not, air will pass in, no vacuum will be formed as in the other case, and the child will draw nothing but air.

The India-rubber teat is now much used instead of that of the cow; and as it resembles in softness and pliability the human teat more than any other, it would be preferable, if it did not, unfortunately, soon become useless, from the little openings at its extremity becoming so large as to run one into the other. To obviate this, the India-rubber is sometimes lined with chamois leather. The only objection to this is, that it makes the teat too stiff for the infant's strength; it is not yielding enough, and therefore soon wearies the child.

Of late I have employed a shield with a *cork nipple*, as a substitute for the prepared teat. The nipple shield is made of ivory, or boxwood, with a small ivory tube for the passage of the milk. The cork nipple is placed upon the ivory tube, and secured to the shield by means of a small collar, which screws over the nipple. The cork being of a particularly fine texture, is supple and elastic, yielding to the infant's lips while suckling. The cork being perfectly harmless, more cleanly and durable than the teat, and the ivory tube through its centre obviating the difficulty frequently met with from the misapplied teat, I would strongly advise its use.*

I would recommend every one subject to sore and cracked nipples, in consequence of the great delicacy and thinness of the skin, at the next confinement, from the first to wear the metallic shield during the interval, and the cork nipple shield during the act of nursing. I attended a lady four months since, with her fourth child, and this is the first she has been able to continue to suckle: from the fact, that previously the nipples had always, some ten days subsequent to her delivery, become so irritable and excoriated, that although every means were diligently used to cure the part, they were ineffectual; and the suffering

* It is the invention of M. Darbo of Paris; and is sold by Weiss and Son, 62. Strand.

she endured compelled her to abandon suckling altogether. With the present child, however, all difficulty has been obviated by using the cork-nipple shield from the first, through which the infant draws its parent's milk with the greatest ease and comfort to both, the child never having had, up to the present moment, its mother's nipple in immediate contact with its lips.

For the cure of the excoriated and chapped nipple, any one of the following remedies will be found useful: — Half an ounce of brandy to eight ounces of rose-water; — four grains of the sulphate of zinc, dissolved in one ounce of rose-water; — two grains of the sulphate of copper, in one ounce of camphor julep; — or one grain of the nitrate of silver in one ounce of rose-water. These lotions, by means of linen dipped into them, are to be applied frequently. If they fail, the surface of the sores or cracks may be *slightly* touched once a day with the nitrate of silver in substance, and in the intervals the part kept smeared with an ointment, composed of two drachms of honey and one ounce of spermaceti ointment — or half a drachm of Peruvian balsam and one ounce of spermaceti ointment.

The nipple should always be washed with a little milk and water, both before and after suckling, which it will be remembered is to be effected through the shield.

These measures are commonly successful: if,

however, they should not succeed, and the parent's health suffer from the continued pain and irritation attendant upon nursing, she must obtain either a wet nurse, or rear the child by an artificial diet.

Sometimes one nipple alone is affected: when this is the case, the child should not be allowed to suckle from this breast until the soreness and cracks are removed. By adopting the treatment before directed, this will be readily effected; and it is only necessary to add, that if the breast becomes distended with milk, a saline aperient (two drachms of Epsom salts in an ounce of distilled peppermint-water) should be taken once or twice a day; that is, sufficiently often to prevent distension of the breast from the milk, but not so as to drive it away.

In all these cases the dress must be carefully kept from irritating the sore nipple. This is usually effected by means of a little cup of wax, or a limpet-shell, the edge of which is covered with sealing-wax. Glasses, however, are made expressly for this purpose, and answer best.*

SECT. II.—UNCONTROLLABLE FLOW OF THE MILK.

THIS occasional evil seems to arise either from some original defect in the structure of the nipple

* These may be obtained at Maw's, 11. Aldersgate Street.

itself, or from the milk tubes, which terminate at the nipple's point, having lost their elasticity, and therefore their power of retaining the milk; so that the mouths of these little tubes never being closed, during the intervals of suckling there is a constant draining of milk from them. This uninterrupted flow not only proves a source of great annoyance to the mother, but, after a time, seriously affects her health.

The means proposed to remedy this defect have been many, but I am obliged to confess their success infrequent. Benefit may be obtained by frequently applying a lotion containing one drachm of alum dissolved in a pint of spring water—or thirty grains of the sulphate of zinc in a pint of the decoction of oak-bark. The breast must be exposed for at least ten minutes after the application of the lotion, and the nipple washed with milk and water before the child is put to it. A glass receiver, made for the purpose of catching the milk, must be constantly worn, and the breast have but slight clothing.

These measures I have always found successful where the case has not been in its worst form; if, however, such a case should occur (fortunately they are very rare), and the treatment is of no avail, the flow of milk not checked, and the health of the mother decidedly and seriously affected, the child must be weaned and the milk dispersed. This becomes absolutely necessary for the mother's safety.

SECT. III.—MILK ABSCESS, OR BAD BREAST.

THERE is no evil that can arise in the lying-in room more dreaded by the patient than “a bad breast.” And the reason why it so frequently occurs is, either that false delicacy and fear on the part of the patient, lest the breast should be examined, almost constantly induce her to submit its management to the nurse; or, the nurse herself supposing she is equal to the task, the medical attendant is not consulted until so much mischief is done that he can but in part repair it. Inadequate means are thus advised and persevered in, until the time for the successful application of the proper remedies is irretrievably lost.

The fact is, that there is no inflammatory complaint which requires more judicious and active treatment than that which attacks this organ. On this account, not a moment is to be lost in temporising; for an impression must be made, and that quickly, on the disease, or all efforts will be unavailing. And, again, I must add, that there is too frequently a want of perseverance and conformity, on the part of the nurse, to the prescriptions of the medical man, after he has seen the breast. Both these circumstances, then, should be counteracted by the good sense and vigilance of the patient.

But she cannot accomplish this desirable pur-

pose unless some hints are given her upon the subject. This is what I now propose; not to enter upon a full detail of the treatment of mammary abscess, but only to point out in what the general management consists, that she may be able to carry out fully the intentions of her medical adviser, so that they may not be thwarted by ignorance on the one hand, or a want of proper diligence and perseverance on the other.

Inflammation of the breast, terminating in abscess, may take place at any period of nursing; but it is more readily excited within a month after delivery. It sometimes occurs after a first delivery, upon the first coming of the milk; most frequently, however, about the third or fourth week.

1. *How to prevent a bad breast upon the first coming of the milk.*

About the third day after delivery, in a first confinement, and occasionally in subsequent confinements also, the breasts become hard, swollen, and very soon painful. And as the process of the secretion of the milk proceeds, the breasts, more swollen than ever, appear to be made up of large and extremely hard lumps or knots, and become very heavy and very tender. After a time the milk is at "its height," as it is termed; and if the breasts be fomented or gently pressed, a small quantity of milk will be seen oozing from the

nipples. When the infant is placed at the breast, the act of suckling will be attended with some degree of pain, but followed by considerable relief; and as the milk flows, the hardness will diminish, the general swelling subside, and the milk being freely and frequently drawn off, the feelings of the patient will become more comfortable, and all pain removed; the breasts will be distended only when some few hours have elapsed since they were drawn, and thus *lactation* will be established.

This is the usual mode. But it may happen that from some mismanagement, from the flatness of the nipple, or because some cause prevents the milk running freely,—the distension of the breast is not relieved; it gets harder, heavier, larger, extending into the arm-pits, and more painful than ever; inflammation ensues,—a bad breast is threatened. To prevent this the following treatment should be adopted:—

The bowels kept relaxed by saline aperients; the thirst allayed by effervescing saline draughts, and no other fluid taken; the breasts fomented every third hour, for five minutes, with flannels wrung out in warm water; then gently and tenderly rubbed with a liniment, warmed, and composed of one ounce and a half of soap liniment, and three drachms of laudanum; and afterwards each breast completely enveloped in a large and well-applied warm bread-and-water poultice. And

last of all, the breasts must be supported by a ~~large silk~~ handkerchief ~~passed~~ under each, and then tied over the neck, so as entirely to prevent their hanging by their own weight.

After the above measures have been pursued perseveringly for six-and-thirty hours ; — and the principal points to which the attention of the mother should be directed are, the regular fomentation of the breasts ; the gentle friction with the liniment ; the application of the warm large poultices, well made, not so dry that they will irritate, and not so moist that they will make her wet and miserable ; and last of all, though not least, the well-applied support ; — I say, after these means have been efficiently employed for six-and-thirty, or eight-and-forty hours, the breast will begin to mend ; great relief will be experienced after the application of the poultices, and, when taken off, that part which was next the nipple will be found saturated with milk. From this time they must be drawn regularly by the attendant, or by means of a pump ; and the extreme swelling and tension having somewhat subsided, the child will be able to grasp the nipple, to draw the milk, and, if regularly applied, prevent any injurious accumulation.

If the breast subsequently continue lumpy and hard, the liniment should still be rubbed every four hours, and in the intervals a piece of flannel,

soaked in some of it, warmed, should be laid over the breast, which is to be covered by a piece of oiled silk, to prevent evaporation and keep the part nicely moist. And thus, by proper management, abscess, or bad breast, at this period, may and ought to be prevented.

2. How to prevent a bad breast when threatened about the third or fourth week or afterwards.

This complaint much more frequently occurs about three or four weeks after delivery, or even after the female has left the lying-in room. It is at this time generally caused, either by the direct application of cold, by the pressure of the stays, or as a consequence of sore nipples. I have elsewhere pointed out how the latter may be avoided, or if produced, cured.

And here I would observe, that the moment any uneasiness, heat, tension, or any thing like a lump forming in the bosom is felt, or that the child has the slightest difficulty in drawing the milk, the medical man should at once be informed of it, instead of wasting the time in trying this little remedy, or that. The early application of the proper remedies is of vital importance here.

The progress of the case before matter forms, and when remedies will be of avail to prevent its occurrence, will be this:—the part will enlarge, become tense, heavy, and painful, and the surface

will soon appear red; or the enlargement will be irregular, and seem to consist of one or more large lumps, situated in the substance of the breast; this difference arising from the particular part of the breast which is affected. The milk in either case will be partly suppressed, or altogether so.

The means to prevent the inflammation terminating in an abscess will consist in the application of leeches to the part so long as there is pain; the exhibition of saline purgatives; a low and dry diet; keeping the inflamed breast from hanging down; gentle friction with the soap and opium liniment, and preventing the over distension of the breast from milk by its occasional abstraction.

The leeches. — So long as the pain returns, half a dozen or more leeches must be applied.

Saline purgatives. — These are essentially necessary, so as to produce three or four watery motions in the four-and-twenty hours. And if this is not effected, the medical attendant ought to be informed of it.

Low diet. — A spare and dry diet is called for. This diminishes the quantity of blood sent to the breast, and thus lessens the amount of distension and milk secreted.

Gentle friction. — This is to be effected with a liniment, composed of three fourths of soap liniment and one fourth of laudanum. A little should be poured into a saucer and placed upon the hob to warm, and then be very gently rubbed over

the breast for about four or five minutes. After this a piece of flannel, the size of the breast, with a hole in the centre for the nipple, is to be soaked with the liniment, and put upon it, and then covered by oiled silk to prevent evaporation; and this is to be repeated every three hours. The breast at this time is better without a poultice.

Drawing the milk. — This ought only to be resorted to when the breast is painfully distended with milk; because the very act of doing this promotes further secretion. The object here is just to relieve the over distension, nothing more; and it is at this period to be accomplished gently and delicately by the nurse only, as the efforts of the infant would be likely to fail; or if not, so violent as to be productive of mischief.

Keeping the breast from hanging down. — This is an important point to attend to — may be easily accomplished, — and if well managed, the ease and comfort arising from it will be manifest enough. For this purpose the breast may be suspended in a silk handkerchief from the neck, and thus firmly and securely held, as in a sling. Even when the liniment is being applied, the hand should be passed under the breast for its support; so that it should at no time be permitted, in its present large and heavy condition, to hang by its own weight. The patient will be easiest in the bed, or on the sofa.

These measures, when fairly applied, and perseveringly followed out, prevent the formation of

matter ; the inflammation subsides ; a bad breast does not take place ; the patient perfectly recovers, and is able to suckle her infant as well with this breast as the other.

But suppose the formation of the abscess is unavoidable, and matter forms ! Then, as soon as the part affected is felt to throb, a large bread-and-water poultice should be applied ; the abscess should be lanced, as soon as this can be done ; and lastly, the patient must be careful that the incision made into it is kept *freely* open during the process of healing in order to allow the matter easily to escape. If the poultice, after a little time, should fret the skin, so as to produce an eruption, it may be exchanged for a piece of lint, placed over the opening of the abscess ; and over the breast itself a piece of linen, spread with spermaceti ointment. This eruption need give no anxiety, as it frequently does ; it is of no consequence, and will soon disappear after the poultices are discontinued.

Is the child to be suckled from the breast affected ? — If the matter from the abscess is not mixed with milk, and the abscess is small, it may do so with advantage to the breast, and no detriment to itself ; but if much of the bosom be involved in the disease, the child should be put to the other breast alone.

If the milk has left the breast, is it likely to return ? — In some instances it soon returns, and

the female may then nurse the infant from it, as well as from the other breast; more frequently, however, it does not, and then the child must be brought up on one breast alone.

Will the hardness which remains in the breast after the abscess has healed be removed? — Yes, in time; and the mother need not give herself any uneasiness upon this point. I know that this circumstance gives rise frequently to the most painful and gloomy apprehension; cancer is supposed likely to ensue. Now there is not the slightest foundation for any such fears: the hardness will remain for a long time; but only because a long time is required for its absorption, which may be promoted by the part being gently rubbed twice a day with the soap liniment.

In conclusion, I have only to observe, that whether your medical attendant pursue the plan of treatment for the management of a bad breast just detailed, or adopt one in some respects differing from it, fail not to give him an *early* opportunity of attacking the disease: and, when he has pointed out the plan to be pursued, follow his directions to the letter, not permitting the suggestion of another in any way to interfere with or alter that plan.

CHAPTER VIII.

OF NURSING.

SECT. I. — THE MANAGEMENT OF THE HEALTH
OF THE MOTHER.

A CAREFUL attention on the part of the mother to her health is especially called for during nursing. Nourishing and digestible milk can be procured only from a healthy and well constituted parent; and it is against common sense to expect that if a mother impairs her system by improper diet, neglect of exercise, and impure air, she can nevertheless provide as wholesome and uncontaminated a fluid for her child as if she were diligently attentive to these important points. Every ailment of the nurse is liable to affect the infant.

A nursing-mother, who has always enjoyed a state of good health, must adhere strictly to the same kind of diet by which it was maintained prior to her confinement. And if, as will most likely be the case, she find her appetite increase, the extra demand must be met, by an increase in that kind of food which is wholesome, nourishing, and simple in quality, and not in that which is

rich and pampering to the appetite. The use of stimuli by a parent of robust constitution, I have already observed, is not required, and that such an individual will find it better for herself, as well as for her child, to adopt the barley-milk beverage. It is a very prevalent and most mischievous error to suppose that because a woman is nursing, she ought therefore to live fully, and to add an allowance of wine, porter, or other fermented liquor, to her usual diet. The only result of this plan is to cause an unnatural degree of fulness in the system, which places the nurse on the brink of disease, and which of itself frequently puts a stop to, instead of increasing, the secretion of milk. This practice of porter drinking, &c. generally commences in the lying-in room. The young mother is there told that it is essential to the production of a plentiful supply of good breast-milk. And from a sense of duty this course is adopted, however disagreeable, as it really is to many who submit to it. Now I am desirous that young mothers should understand that this advice, however well meant, is not good advice; nay more, that when followed, it is frequently productive of mischief.

Exercise and fresh air are essential to the production of good and nourishing breast-milk, as they also contribute to increase the quantity secreted.* No one can have seen much of practice in this metropolis, and not have been fully con-

vinced of this fact. Wet or fine, if the mother be but in good health, she should take the daily walk.

I need scarcely remind the nursing parent of the importance of attending to the state of her skin — of the invigorating effects of the bath; to the proper regulation of the bowels; to the avoidance of all mental excitement, which frequently exercises a very prejudicial effect on the quality of the breast-milk; to the injurious influence of an indulgence in late hours night or morning. These and many other points connected with the health, it is unnecessary further to dwell upon or allude to here. The right plan of proceeding is plain enough: all that is required is, that the mother should strictly adhere to it. She will then have milk sufficient in quantity, and wholesome and nourishing in quality, so long as her infant requires this kind of nutriment.

Many women are healthy, but have not a robust constitution. So long, however, as they possess a frame free from disease, they may nurse with great advantage to themselves and without detriment to the child. But it behoves such persons assiduously to employ every means likely to invigorate their health, the more especially as such care will tend to prevent that deficiency in the quantity of milk, which is very apt to occur sooner or later. At the risk of repeating much that I have already stated, I would recommend in these cases a plain, generous, nutritious diet, — not of one de-

scription of food exclusively, but as is natural, a wholesome, mixed animal and vegetable diet. A trial too may be made here of beer or wine, according to former habit. A pint of good sound ale or porter in the four-and-twenty hours, will, in some, be found to have a favourable effect upon the health: when this is the case, let it be continued; on the other hand, if it produce discomfort and disturbance of the system, let it be at once abandoned. I find, however, more good to arise out of exercise and the bath, than from any stimuli. Regular daily exercise in the open air (I must again repeat) is of great importance, having an extraordinary influence in promoting the secretion of healthy milk;—as also has the tepid or cold salt-water shower-bath taken every morning, immediately upon rising. If the latter cannot be borne, sponging the body with tepid or cold salt water must be substituted. By following with perseverance the foregoing hints, a breast of milk will be obtained, as ample in quantity, and good in quality, as the constitution of the parent can produce. By and by the supply may somewhat fall off, and that before the first teeth of the child appear. In which case the deficiency must be made up by artificial food, of a kind suited to the age of the child, and given through the bottle.

A deficiency of milk will, in some mothers, exist from the earliest weeks after delivery. If this is not quickly remedied by the means just pointed

out, a wet-nurse must be obtained. It will be of no avail partially to nurse and partially to feed the infant at this period and under such circumstances; for if it is not soon lost, it will only live a few months, or a year at most, and be an object of the greatest anxiety and grief to its parent. The constitution of the mother in this case is generally unhealthy, and the condition into which the child is brought arises from the unwholesomeness of her milk.

Women who marry comparatively late in life, and bear children, generally have a deficiency of milk after the third or fourth month; artificial feeding must in part be here resorted to.

In some women *the monthly periods* return before they cease to nurse. If this take place early after delivery, it will in most cases so alter the qualities of the milk as seriously to affect the health of the child, and oblige the mother to transfer her little one to a wet-nurse. But when it does not occur until the sixth or seventh month, I have seldom found much inconvenience to arise therefrom. As a general rule, the breast should be withheld from the child as much as possible during its continuance, and artificial food substituted. As I have elsewhere observed, this is a substantial objection whenever found to exist in the selection of a wet-nurse.

I may just mention that many mothers give

themselves unnecessary fatigue in suckling from the awkward manner in which they hold the child. Until the child is old enough to sit while it is suckling, or the mother accustomed to raise the child cleverly in her arms to the breast, it is best for her to lie down when the infant has occasion to suck. At all times, if in bed, the child should take the breast as it lies, and not incommode the mother by obliging her to sit up in bed. When up and nursing, the mother should sit upright and raise the child to her breast, and not bend forward to suckle the infant on her lap. This greatly tires and fatigues the mother and causes severe pain in her back, without in any degree relieving the child.

Again, a parent should avoid giving one breast more frequently than the other; the infant should be applied to each in its turn. This it is necessary to observe, not only that the secretion of milk may be equally promoted in each breast, but also lest the child should contract the habit of squinting, of which there is danger, if suckled upon one breast only, from having its eyes constantly directed to one side.

SECT. II.—RULES FOR NURSING THE INFANT.

FROM the first moment the infant is applied to the breast, it must be nursed on a certain plan;

this is essential to the well-doing of the child. One of the most fruitful sources of disease in the early days of infantile life, is improper management in relation to diet; and a large portion of the suffering and mortality which occur during this period, arises from this cause alone. Such regularity, too, will much contribute to the preservation of the parent's health; and whilst it thus renders her a better nurse, will cause the duty of nursing to be a source of increased pleasure.

The plan to be followed until the first teeth appear. — It has already been observed, that after the infant is washed and dressed, it is to be put quietly to sleep, and having been allowed to repose for some hours, it is to be put to the mother's breast; that, from this source alone, in some cases, its wants, from the very first hour of its life, will derive a sufficient supply; but that in the majority of instances, particularly in first confinements, this will not be the case until two or three days after delivery: that when this deficiency exists, it must be supplied by an artificial diet, as like to breast-milk as can be found: that this is obtained by mixing two thirds of fresh cow's milk with one third of water, sweetened with loaf sugar: that a few spoonfuls of this are to be given every three or four hours, through the sucking-bottle, and not from the boat or spoon: that this caution is necessary, in reference to the quantity and mode of giving this food, since if the quantity given is

not very small, and the mode of giving it very slow, the digestive function will become deranged, and acidity, flatulence, and even colic may supervene.

The breast-milk being fully established, and furnished in sufficient quantity, the artificial food is to be put aside, and the infant from this time must obtain its nourishment from the breast alone.

For a week or ten days the appetite of the infant is to be the mother's guide, as to the frequency in offering the breast. The stomach at birth is feeble, and as yet unaccustomed to food ; its wants, therefore, are easily satisfied, but they are frequently renewed. An interval, however, sufficient for digesting the little swallowed, is obtained before the appetite again revives, and a fresh supply is demanded.

The week or ten days having expired the infant is to be nursed until the end of the lying-in month, at regular intervals of every four hours. This will allow sufficient time for each meal to be digested, and for the stomach to regain the tone necessary for the digestion of the next, and tend also very essentially to promote the due and healthy action of the bowels. Such regularity, moreover, will do much to obviate fretfulness, and to prevent that constant cry which, it appears to the parent, and to all about her, that nothing but perpetually giving the breast to the infant can allay. This evil, indeed, generally grows out of irregular nursing. The young mother, considering

every expression of uneasiness as an indication of appetite, runs into the very serious error of offering the breast at all times and seasons, so that frequently the child has not left the breast ten minutes before it is again put there. From this injurious and dangerous practice, the stomach of the infant becomes overloaded, — the food remains undigested, — the bowels are always disordered, — fever is excited, — and by and by the symptoms become aggravated, the infant seriously ill, and is perhaps eventually lost; when by simply observing from the first the rules of nursing laid down, it might have continued a healthy, and grown into a vigorous child. These cases of indigestion in the infant caused by irregular and too frequent nursing are continually occurring, and as frequently medicine is given without permanent relief, because the cause of the mischief is not obviated; it is overlooked. Fortunately, in most cases, the mother, tired of a fruitless repetition of medicine, seeks further aid; when, by simply adopting the rules of nursing now laid down, the child's symptoms are removed, healthy digestion restored, and no relapse occurs; this happy issue being, perhaps, obtained without the exhibition of further medicine at all.

The lying-in month having expired, it is advisable to alter the periods of night-nursing, or rather do away with night-nursing altogether; that is, to suckle the infant as late as ten o'clock, p. m.,

and not to put the child to the breast again until five o'clock the next morning. I am constantly in the habit of advising this measure, and I have always found it, when adopted, of great advantage to the mother's health, and never attended by the slightest injury to the child. With the latter it soon becomes a habit; to induce it, however, it must be taught early. It is true, that where there is much delicacy and a feeble constitution, it will be necessary sometimes to postpone it a little longer. This very delicacy, however, whilst it demands a more frequent supply, calls for the greatest care in affording it, lest it be too frequent and too great in quantity. And be it remembered by the reader, that this is only an occasional exception to a most important principle, the adoption of which should never be delayed, except from paramount necessity. Indeed, so convinced am I of the importance of calm, quiet, and undisturbed repose during the night to the nursing mother, that whenever circumstances will allow of it, I would advise that the child from this time no longer sleep in the bed-room of its parent, but in charge of its nurse. Sleep is as necessary for the restoration of strength as nourishment itself, and the deprivation of it will soon diminish and deteriorate the quantity and quality of the mother's milk, and sometimes — the cause being little suspected — will drive it away altogether. I am fully aware of the repugnance of some mothers to

this measure, and that even in the wealthiest families, where the best services can be obtained, and every convenience exists, they are unwilling to intrust the child, that they desire should be constantly under their own eye, to a servant's care. Sooner or later, however, this change must take place, the most devoted mother must submit to it, and the peril is not greater at this time of life than at any other. The grand point is, to select a proper person for this duty, and then to exercise over her an active, firm, and wise *surveillance*. How seldom is this sufficiently regarded! To meet with a superior and experienced nursemaid is the exception, not the rule. The short-sighted economy of a few pounds per annum is allowed but too frequently to be an insurmountable barrier to the securing such an individual, one whose watchfulness and care over the physical and moral education of the little one would repay a hundred-fold any little sacrifice it might be necessary to make to obtain it.*

This course, then, is to be followed until the

* In confirmation of the above remarks I extract a brief passage from the work of Mons. Al. Donné, *Conseils aux Mères sur l'Allaitement et sur la manière d'élever les Enfants nouveau-nés*, p. 53. "Loin d'approuver l'usage adopté par beaucoup de mères pleines de dévouement et de tendresse, de faire coucher leurs enfants près d'elles, je suis si convaincu de la nécessité de ménager, autant que possible, leur sommeil et leur repos pendant la nuit, que je ne puis trop recommander, toutes les fois que la chose pourra se faire, que l'état de la fortune et la disposition de l'habitation le permettront, de tenir l'enfant éloigné de sa mère pendant la nuit."

appearance of the first teeth (about the sixth or seventh month), and if the parent be a healthy woman, the quantity of milk supplied by the breast will generally be found sufficient to afford adequate nourishment to the child, without additional assistance from artificial food. The latter is on no account to be given (up to this period) unless from deficiency of milk, or some other cause, it be positively required. If, however, after the expiration of some months, this deficiency should exist, it must be made up by the mixture of cow's milk and water, and of this alone, if it agree with the child. It must be given, too, through the sucking-bottle, until the teeth appear; after which time an alteration in the kind of food, and the mode of exhibiting it, similar to that proposed below, may be adopted.

The plan to be followed after the first teeth have appeared. — When the mother, at this period, has still an abundant supply of nourishing milk, and the child is healthy and evidently flourishing upon it, I would not recommend any immediate change. The parent may, with benefit to her own health, as well as with advantage to the child, pursue the same plan as heretofore for a few weeks longer. In general, however, the mother will require some little aid at this time, and artificial food may now be given, twice in the course of the day, without risk or injury to the child. Good fresh cow's milk, with the addition of water or not, as it is found

to agree best; Hard's farinaceous food; Leman's tops-and-bottoms; sago or arrow-root; or, if these disagree with the stomach, weak beef-tea, veal-tea, or mutton-tea, clear and free from fat, and mixed with an equal quantity of farinaceous food and a few grains of salt,—any one of these which the parent finds to agree best may be given with benefit.

As this is the first time that artificial food has been particularly referred to, it is right to observe, as a general remark applicable to its use at all times, that the greatest care must ever be taken in the selection of it, in its preparation, in the quantity given, and in the mode of giving it. In *the choice* of the food, the mother must be guided by circumstances: she must find out that which suits best; and so long as the child flourishes, she should from no trivial cause change it. The different kinds just pointed out may be tried in the order given till one is found to agree. The *mode of making* these preparations is detailed at length at page 307: this has been done because the defective manner in which artificial food is prepared is not unfrequently the sole cause of its failure. It is only necessary further to observe upon this point, that the vessel in which it is made, as well as that out of which it is given to the child, must be perfectly sweet and clean. *The quantity given* must be small, lest the stomach be overloaded, which seldom fails, after a little

while, to impair its tone, and gives rise to the distressing dyspeptic symptoms before alluded to. In reference to *the mode of giving it*, the child must be fed slowly; and, minding this precaution, the sucking-bottle may now be discontinued, and the spoon used in its stead: but more full instructions upon all the foregoing points will be found in the chapter on "Artificial Feeding."

In about six weeks or two months after the artificial food has been in part commenced it may be given, if necessary, more frequently — three or four times in the twenty-four hours, and the breast of course less frequently. This will prepare the infant for weaning, which, under these circumstances, when the time arrives, will be easily accomplished.

Such is the plan of nursing to be followed by the mother until the infant is weaned entirely from the breast. The period when this ought to take place, as also the manner of accomplishing it, are detailed in the section on "Weaning."

SECT. III. — THE INJURIOUS EFFECTS TO THE MOTHER OF UNDUE AND PROTRACTED SUCKLING.

THE period of suckling is generally one of the most healthy of a woman's life. But there are exceptions to this as a general rule; and nursing,

instead of being accompanied by health, may be the cause of its being materially, and even fatally, impaired. This may arise out of one of two causes: either a parent continuing to suckle too long, — or from the original powers or strength not being equal to the continued drain on the system. Examples of the first class I am meeting with daily. I refer to poor married women, who, having nursed their infants eighteen months, two years, or even longer than this, from the belief that by so doing they will prevent pregnancy, call to consult me with an exhausted frame and disordered general health, arising solely from protracted nursing, pursued from the above mistaken notion. Of the second class, I most frequently meet with it in the delicate woman, who, having had two or three children in quick succession, her health gives way, so that she has all the symptoms arising from undue suckling, when perhaps the infant at her breast is not more than two or three months old. Since the health of the mother, then, will suffer materially from this circumstance, she ought not to be in ignorance of the fact; so that, when the first symptoms manifest themselves, she may be able to recognise their *insidious* approach; and tracing them to their real cause, obtain medical advice before her health be seriously impaired.

Symptoms. — The earliest symptom is a dragging sensation in the back when the child is in

the act of sucking, and an exhausted feeling of sinking and emptiness at the pit of the stomach afterwards. This is soon followed by loss of appetite, costive bowels, and pain in the left side. Then the head will be more or less affected; sometimes with much throbbing, singing in the ears, and always some degree of giddiness, with great depression of spirits. Soon the chest becomes affected; and the breathing is short, accompanied by a dry cough and palpitation of the heart, upon the slightest exertion. As the disease advances, the countenance becomes very pale, and the flesh wastes; and profuse night perspirations, great debility, swelling of the ankles, and nervousness ensue. It is unnecessary, however, to enter into a more full detail of symptoms.

Treatment.—All that it will be useful to say in reference to treatment is this, that, although much may be done in the first instance by medicine, change of air, cold and sea bathing, yet the quickest and most effectual remedy is to *wean the child*, and thus remove the cause.

There is another and equally powerful reason why the child should be weaned, or rather have a young and healthy wet-nurse, if practicable. *The effects upon the infant*, suckled under such circumstances, will be most serious. Born in perfect health, and having continued so up to this period, it will now begin to fall off in its appearance; for the mother's milk will be no

longer competent to afford it due nourishment, — it will be inadequate in quantity and quality. Its countenance, therefore, will become pale; its look sickly; the flesh soft and flabby; the limbs emaciated; the stomach large; and the evacuations fetid and unnatural. And, in a very few weeks, the blooming healthy child will be changed into the pale, sickly, peevish, wasted creature, whose life appears hardly desirable.

The only measure that can save the life, and recover an infant from this state, is that which would previously have prevented it — a healthy wet-nurse.

If the effects upon the infant should not be so aggravated as those just described, and it subsequently live and thrive, there will be a tendency in such a constitution to scrofula and consumption, to manifest itself at some future period of life, undoubtedly acquired from the parent, and dependent upon the impaired state of her health at the time of its suckling. A wet-nurse, early resorted to, will prevent this.

It will be naturally asked, for how long a period a mother ought to perform the office of a nurse? No specific time can be mentioned; and the only way in which the question can be met is this, — no woman, with advantage to her own health, can suckle her infant beyond twelve or eighteen months; and at various periods between the third and twelfth month, many

women will be obliged partially or entirely to resign the office.

The *monthly periods* generally reappear from the twelfth to the fourteenth month from delivery; and when established, as the milk is found invariably to diminish in quantity, and also to deteriorate in quality, and the child is but imperfectly nourished, it is positively necessary in such instances at once to wean it.

SECT. IV. — MOTHERS WHO OUGHT NEVER TO SUCKLE.

THERE are some women who ought never to undertake the office of suckling, not so much on account of their own health, as that of their offspring.

The woman of a consumptive and strumous constitution ought not. — In the infant born of such a parent there will be a constitutional predisposition to the same disease; and if it is nourished from her system, this hereditary predisposition will be confirmed.

“No fact in medicine is better established than that which proves the hereditary transmission from parents to children of constitutional liability to pulmonary disease, and especially to consumption; yet no condition is less attended to in forming matrimonial engagements. The children of scro-

fulous or consumptive parents are generally precocious; and their minds being early matured, they engage early in the business of life, and often enter the married state before their bodily frame has had time to consolidate. For a few years every thing seems to go on prosperously, and a numerous family gathers around them. All at once, however, even while youth remains, their physical powers begin to give way; and they drop prematurely into the grave, exhausted by consumption, and leaving children behind them, destined, in all probability, either to be cut off as they approach maturity, or to run through the same delusive but fatal career as that of the parents from whom they derived their existence."* There is scarcely an individual who reads these facts to whom memory will not furnish some sad and mournful example of their truth, though they perhaps may have hitherto been in ignorance of the exciting cause.

The constitution, then, of such a female renders her unfit for this task; and however painful it may be to her mind at every confinement to debar herself this delightful duty, she must recollect that it will be far better for her own health, and infinitely more so for that of the child, that she should not even attempt it; that her own health would be

* Combe's Principles of Physiology applied to the Preservation of Health, &c.

injured, and her infant's, sooner or later, destroyed by it.

The infant of a consumptive parent, however, must not be brought up by hand. It must have a young, healthy, and vigorous wet nurse: and in selecting a woman for this important duty very great care must be observed.* The child should be nursed until it is twelve or fifteen months old. In some cases it will be right to continue it until the first set of teeth have appeared, when it will be desirable that a fresh wet-nurse should be obtained for the last six months, and one that has been confined about six weeks or two months will be most suitable. If the child is partially fed during the latter months (from necessity or any other cause), the food should be of the lightest quality, and constitute but a small proportion of its nutriment.

But not only must the nourishment of such a child be regarded, but the *air* it breathes, and the *exercise* that is given to it; as also the careful removal of all functional derangements as they occur, by a timely application to the medical attendant, and maintaining, especially, a healthy condition of the digestive organs. All these points must be strictly followed out, if any good is to be effected.

By a rigid attention to these measures the mother adopts the surest antidote, indirectly to

* See "Choice of a Wet-nurse," p. 284.

overcome the constitutional predisposition to that disease, the seeds of which, if not inherited from the parent, are but too frequently developed in the infant during the period of nursing; and, at the same time, she takes the best means to engender a sound and healthy constitution in her child. This, surely, is worth any sacrifice.

If the infant derives the disposition to a strumous constitution entirely from the father, and the mother's health be unexceptionable, then I would strongly advise her to suckle her own child.

The mother of a highly susceptible nervous temperament ought not. — There are other women who ought never to become nurses. The mother of a highly susceptible nervous temperament, who is alarmed at any accidental change she may happen to notice in her infant's countenance, who is excited and agitated by the ordinary occurrences of the day, — such a parent will do her offspring more harm than good by attempting to suckle it. Her milk will be totally unfit for its nourishment: at one time it will be deficient in quantity, — at another so depraved in its quality, that serious disturbance to the infant's health will ensue.

The young and inexperienced mother, who is a parent for the first time, and altogether ignorant of the duties of her office, and at the same time most anxious to fulfil them faithfully, is but too frequently an instance in point; although at a

future period she will generally make a good nurse. The following is an illustration:—

In December, 1838, I attended a young married lady in her first confinement, and in excellent health. She gave birth to a fine, plump, healthy boy. Every thing went on well for three weeks, the mother having an abundant supply of milk, and the infant evidently thriving upon it. About this time, however, the child had frequent fits of crying; the bowels became obstinately costive; the motions being lumpy, of a mixed colour, quite dry, and passed with great pain. It became rapidly thin; and after a while its flesh was so wasted, and became so flabby, that it might be said literally to hang on the bones. The fits of crying now increased in frequency and violence, coming on every time after the little one left the breast, when it would commence screaming violently, beat the air with its hands and feet, and nothing that was done could appease it. Having lasted for half an hour or more, it would then fall asleep quite exhausted; the fit recurring again and again after every nursing. It was very evident that the infant's hunger was not satisfied; as it was also but too evident its body was not nourished by the parent's milk, which, although abundant in quantity (the breast being large and full of milk), was at this time seriously deteriorated in its nutritive quality. This was

caused, I believe, from great anxiety of mind. Her monthly nurse became suddenly deranged, and the whole responsibility and care of the child thus devolved upon the mother, of the duties connected with which she was entirely ignorant. A wet-nurse was obtained. In a very few hours after this change was effected, the screaming ceased, the child had quiet and refreshing sleep, and in twelve hours a healthy motion was passed. The child gained flesh almost as quickly as it had previously lost it, and is now as fine and healthy an infant as it promised to be when born.

Whenever there has existed previously any nervous or mental affection in the parent, wet-nurse suckling is always advisable; this, with judicious management of childhood, will do much to counteract the hereditary predisposition.

The mother who only nurses her infant when it suits her convenience ought not.—The mother who cannot make up her mind exclusively to devote herself to the duties of a nurse, and give up all engagements that would interfere with her health, and so with the formation of healthy milk, and with the regular and stated periods of nursing her infant, ought never to suckle. It is unnecessary to say why; but I think it right for the child's sake to add, that if it does not sicken, pine, and die, *disease will be generated in its constitution*, to manifest itself at some future period.

The child, then, under all the foregoing circumstances, must be provided with its support from another source, and a wet-nurse is the best.

SECT. V.—WET-NURSE SUCKLING.

CHOICE OF A WET-NURSE.—Ill health and many other circumstances may prevent a parent from suckling her child, and render a wet-nurse necessary. Now, although she will do wisely to leave the choice of one to her medical attendant, still, as some difficulty may attend this, and as most certainly the principal points to which his attention is directed in the selection of a good nurse, the mother herself ought to be acquainted with, so it will be well to point out in what they consist.

The first thing, then, to which a medical man looks, is the general health of the woman; next, the condition of her breast—the quality of her milk—its age, and her own; whether she is ever unwell while nursing; and, last of all, the condition and health of the child.

Is the woman in good health?—Her general appearance ought to betoken a robust constitution, and free from all suspicion of a strumous character or any hereditary taint; her tongue clean, and digestion good; her teeth and gums sound and perfect; her skin free from eruption, and her breath sweet.

What is the condition of the breast? — A good breast should be firm and well formed; its size not dependent upon a large quantity of fat, which will generally take away from its firmness, giving it a flabby appearance, but upon its glandular structure, which conveys to the touch a knotted, irregular, and hard feel; and the nipple must be perfect, of moderate size, but well developed.

What is the quality of the milk? — It should be thin, and of a bluish-white colour; sweet to the taste; and when allowed to stand, should throw up a considerable quantity of cream.

What is its age? — If the lying-in month of the patient has scarcely expired, the wet-nurse hired ought certainly not to have reached her second month. At this time the nearer the birth of the child and the delivery of its foster-parent, the better. The reason for which is, that during the first few weeks the milk is thinner and more watery than it afterwards becomes. If, consequently, a newly-born infant be provided with a nurse who has been delivered three or four months, the natural relation between its stomach and the quality of the milk is destroyed, and the infant suffers from the oppression of food too heavy for its digestive powers.

On the other hand, if you are seeking a wet-nurse for an infant of four or five months old, it would be very prejudicial to transfer the child to

a woman recently delivered; the milk would be too watery for its support, and its health in consequence would give way.

The nurse herself should not be too old.—A vigorous young woman from twenty-one to thirty admits of no question. And the woman who has had one or two children before is always to be preferred, as she will be likely to have more milk, and may also be supposed to have acquired some experience in the management of infants.

Inquire whether she is ever unwell while nursing.—If so, reject her at once. You will have no difficulty in ascertaining this point, for this class of persons have an idea that their milk is *renewed*, as they term it, by this circumstance, monthly; and, therefore, that it is a recommendation, rendering their milk fitter for younger children than it would otherwise have been. It produces, however, quite a contrary effect: it much impairs the milk, which will be found to disagree with the child, rendering it at first fretful,—after a time being vomited up, and productive of frequent watery dark-green motions.

Last of all, *what is the condition of the child?*—It ought to have the sprightly appearance of health, to bear the marks of being well nourished, its flesh firm, its skin clean and free from eruption. It should be examined in this respect, particularly about the neck, head, and gums.

If a medical man finds that both mother and

child answer to the above description, he has no hesitation in recommending the former as likely to prove a good wet-nurse.

The principal points which the parent must investigate for herself (independent of the medical attendant's inquiries) have reference to *the moral qualifications* of the applicant; and if there is found to be any defect here, however healthy or otherwise desirable, the woman ought at once to be rejected. Temperance, cleanliness, a character for good conduct, fondness for children, and aptness in their management, are among the most important requisites. An amiable disposition and cheerful temper are also very desirable. A violent fit of passion is capable of exerting the most pernicious influence upon the breast-milk, and so altering its healthy qualities that a child has been frequently known to be attacked with a fit of convulsions after being suckled by a nurse while labouring under the effects of a fit of anger: the depressing passions as frequently drive the milk away altogether. It is hence of no small moment that a wet-nurse be of a quiet and even temper, and not disposed to mental disturbance. The following instance, in confirmation of the latter statement, fell under my notice very lately.

One Christmas-day afternoon, a gentleman called for me in great haste and distress of mind, having left his child (an infant of between two and three months) in an attack of convulsions, so

severe as to threaten a fatal termination. This child I had seen at the same hour the day before sucking at the breast of its wet-nurse in perfect health, never having had a moment's illness. It appeared that the little patient had shown the first symptoms of indisposition the previous night after the nurse had retired to rest ; when having been at the breast, it became restless, crying frequently, evidently from pain. In the course of the night the bowels were violently purged ; towards morning the stomach would not retain the milk ; and as the day advanced the general symptoms of uneasiness increased, and in the afternoon the convulsions above referred to came on. Upon inquiry I found that the father of the young nurse had called on the previous evening ; and not only violently abused his daughter, using severe and unwarrantable language, but had struck the poor girl, he being under the influence of liquor at the time. This interview produced such mental distress in the young woman as to attract the attention of her mistress, when an explanation of the cause ensued. Strict orders were given to forbid the man the house in future : but the mischief was done ; for it was but too evident that the alarming state in which I found the child had been produced by the deleterious change which had taken place in the nurse's milk. Remedial measures were used ; the breast-milk withheld ; and the infant, although it continued for many

days in a doubtful state, eventually recovered: the young woman's milk, however, was altogether driven away, and another wet-nurse was, without delay, obliged to be obtained.

It is unnecessary to allude to other qualities which a woman who is sought as a wet-nurse should possess: they will naturally suggest themselves to any thoughtful mind.

DIET AND REGIMEN OF A WET-NURSE.—The regimen of a wet-nurse should not differ much from that to which she has been accustomed; and any change which it may be necessary to make in it should be gradual. It is erroneous to suppose that these women, when nursing, require to be much more highly fed than at other times: a good nurse does not need this, and a bad one will not be the better for it. The quantity which many nurses eat and drink, and the indolent life which they too often are allowed to lead, have the effect of deranging their digestive organs, and frequently induce a state of febrile excitement, which always diminishes, and even sometimes altogether disperses the milk.

It is always necessary, then, for the mother to prevent the wet-nurse overloading her stomach with a mass of indigestible food and drink. She should live as much as possible in the manner to which she has been accustomed; she should have a wholesome mixed animal and vegetable diet, and

a moderate quantity of malt liquor, *provided* it be found necessary.

As I have before said, a very prevailing notion exists that porter tends to produce a great flow of milk. In consequence of this prejudice, the wet-nurse is often allowed as much as she likes: a large quantity is in this way taken, and after a short time so much febrile action excited in the system, that instead of increasing the flow of milk, it diminishes it greatly. Sometimes, without diminishing the quantity, it imperceptibly but seriously deteriorates its quality. For instance:—

In May of the present year a wet-nurse became necessary for an infant of two months old, the child of a lady that I attended in her confinement. A young woman was obtained, healthy and robust. At first the nurse's milk seemed to suit the child, and every thing went on well for three weeks. At this time I was sent for, the infant having had diarrhœa for three or four days, with green motions and occasional vomiting. I looked for the cause, and, amongst other inquiries, to the health of the nurse. I was told that she was in perfect health; but perceiving that she looked ruddier and more full in the face than heretofore, I inquired about the quantity of beverage allowed, and found it exceeded two pints of porter daily. I then prescribed—for the infant, no medicine; for the nurse, one pint of porter only. As the patient lived some little distance from town I did not see

the child for three days: it was then somewhat better, but still not well. I directed the malt liquor to be discontinued altogether, and the nurse to have the shower-bath every morning and plenty of out-door exercise. In three days more the infant was perfectly well, and the nurse had still an ample supply of milk, which now agreed with and nourished the child.

As a general rule, I believe porter, wine, or any stimulant quite as unnecessary for the wet-nurse as for the nursing mother, if she be in sound and vigorous health. That there are cases benefited by its daily moderate use, I have no doubt: but these are the exceptions. I am every day more and more convinced of the truth of this statement; and that it will be found practically true.

It may be well here to remark, that in London I frequently meet with severe cases of diarrhoea in infants at the breast, fairly traceable to bad porter, which vitiating the quality of the milk, no medical treatment cures the disease until this beverage is left off or changed, when it at once disappears. The following is a case in point:—

On the 25th May, 1836, I was called to see an infant at the breast with diarrhoea. The remedial measures had but little effect so long as the infant was allowed the breast-milk; but this being discontinued, and arrow-root made with water only allowed, the complaint was quickly put a stop to. Believing that the mother's milk was impaired

from some accidental cause which might now be past, the infant was again allowed the breast; in less than four and twenty-hours, however, the diarrhoea returned. The mother being a very healthy woman, it was suspected that some unwholesome article in her diet might be the cause; the regimen was accordingly carefully inquired into, when it appeared that porter from a neighbouring publican's had been substituted for their own for some little time past. This proved to be bad, throwing down, when left to stand a few hours, a considerable sediment: it was discontinued; good sound ale taken instead; the infant again put to the breast,—upon the milk of which it flourished, and never had another attack.

Again, the nurse should take exercise daily in the open air. Let it be remembered (as before observed) that nothing tends more directly to maintain a good supply of healthy milk than air and exercise; and the best wet-nurse would soon lose her milk, if constantly kept within doors. Sponging the whole body too with cold water with bay salt in it, every morning, should be insisted upon, if possible: it preserves cleanliness, and greatly invigorates the health. United with this the nurse should rise early, and also be regularly employed during the day in some little portion of duty in the family, an attendance on the wants of the child not being alone sufficient.

SECT. VI. — WEANING.

THE time when to take place. — The time when weaning is to take place must ever depend upon a variety of circumstances, which will regulate this matter, independently of any general rule that might be laid down. The mother's health may, in one case, oblige her to resort to weaning before the sixth month; and, in another instance, the delicacy of the infant's health to delay it beyond the twelfth. Nevertheless, as a *general rule*, both child and parent being in good health, weaning ought never to take place earlier than the ninth (the most usual date), and never delayed beyond the twelfth month.

I should say further, that if child and parent are both in vigorous health, — if the infant has cut several of its teeth, and been already accustomed to be partially fed, weaning ought to be gradually accomplished at the ninth month. On the other hand, that if the child is feeble in constitution, the teeth late in appearing, and the mother is healthy and has a sufficient supply of good milk, especially if it be the winter season, it will be far better to prolong the nursing for a few months. In such a case, the fact of the non appearance of the teeth indicates an unfitness of the system for any other than the natural food from the maternal breast.

And again, if the infant is born of a consump-

tive parent, and a healthy and vigorous wet-nurse has been provided, weaning should most certainly be deferred beyond the usual time; carefully watching, however, that neither nurse or child suffer from its continuance.

The mode.—It should be effected gradually. From the sixth month most children are fed twice or oftener in the four-and-twenty hours; the infant is in fact, therefore, from this time, in the progress of weaning; that is to say, its natural diet is partly changed for an artificial one, so that when the time for *complete weaning* arrives, it will be easily accomplished, without suffering to the mother, or much denial to the child.

It is, however of the greatest importance to regulate the quantity and quality of the food at this time. If too much food is given (and this is the great danger), the stomach will be overloaded; the digestive powers destroyed; and, if the child is not carried off suddenly by convulsions, its bowels will become obstinately disordered; it will fall away from not being nourished, and perhaps eventually become a sacrifice to the over-anxious desire of the parent, and its friends, to promote its welfare. The kind of food proper for this period, and the mode of administering it, are detailed in the section on “Artificial Feeding.”

Much exercise in the open air (whenever there is no dampness of atmosphere) is highly necessary

and beneficial at this time ; it tends to invigorate the system, and strengthens the digestive organs, and thus enables the latter to bear without injury the alteration in diet.

SECT. VII.—DRYING UP THE MILK.

DIRECTLY after delivery.—It may be necessary, from the delicate health of the mother, — local defect, the nipple, for instance, being too small or obliterated by the pressure of tight stays, — death of the infant, or some equally urgent cause, to dry up, or “backen the milk,” as it is popularly called.

Now it is a very frequent practice to apply cold evaporating lotions to the breast for this purpose. It is true they may produce a rapid dispersion of the milk : but they ought never to be resorted to, as they frequently give rise to symptoms of an alarming and dangerous character. The best and safest local application consists in the following liniment : —

Compound soap liniment, three ounces ;

Laudanum, three drachms ;

Camphor liniment, one drachm.

Or if this is found too irritating, compound soap liniment alone. Either of these liniments must be applied warm, and constantly, by means of several layers of linen or flannel, covered by a piece of oiled silk ; and the breast gently pressed or rubbed

for five or ten minutes, every four or five hours, with warm almond oil.

Sometimes the skin is so thin and sensitive, that the compound soap liniment proves too stimulating, and covers the breast with an irritable eruption. In these cases bread and water poultices must be substituted, but the warm almond oil must also be used as directed in the former cases.

While the breasts remain only moderately hard, easy, and but little distended with milk, they must not be emptied; for this would encourage further secretion, and they would soon fill again. If, however, they become very hard and painful, and give much uneasiness from their distension, they must be partially emptied, so as just to relieve the distension—nothing more; and this is to be repeated as often as is absolutely necessary.

A gentle saline aperient should be taken every morning, and, if necessary, at night, the object being to keep the bowels slightly relaxed. The diet must be very scanty, and solid nourishment only taken. If, however, the thirst is distressing, it must be allayed by frequently washing out the mouth with toast and water; and an orange or two, or a few ripe grapes, may be taken in the course of the day.

Following up this plan, the distress arising from the extreme distension of the breasts, if it have been present, will be removed; although several

days will transpire before the milk is thoroughly dispersed, or the remedies can be discontinued; and a sensation described by females as of “a draught of milk” in the breasts, will sometimes be felt two or three times a day for weeks afterwards.

At the time of weaning. — From the circumstance of the child being partially fed for some time before it is completely weaned, the mother will experience little trouble in dispersing her milk. She must, however, not neglect to take opening medicine, not only to assist the foregoing object, but also to prevent that depression of spirits, lassitude, loss of appetite, and general derangement of health, which so frequently follow weaning, when these medicines are omitted.

If the breasts should continue loaded, or indeed painfully distended, the aperient must not only be taken so frequently as to keep the bowels gently relaxed, but the diet must be diminished in quantity, and solid nourishment only taken. The breasts, too, if painfully distended, must be occasionally drawn, but only just sufficiently to relieve the distension; they must also be rubbed for five or ten minutes, every four or five hours, with the following liniment previously warmed:—

Compound soap liniment, one ounce and a half;
Laudanum, three drachms.

SECT. VIII. — ARTIFICIAL FEEDING.

EXTREME delicacy of constitution, diseased condition of the frame, defective secretion of milk, and other causes, may forbid the mother suckling her child; and unless she can perform this office with safety to herself and benefit to her infant, she ought not to attempt it. In this case a young and healthy wet-nurse is the best substitute; but even this resource is not always attainable. Under these circumstances the child must be brought up on an artificial diet — “by hand,” as it is popularly called. To accomplish this, however, with success, requires the most careful attention on the part of the parent. It is at all times attended with risk, particularly in large cities. For although with due care the strong and healthy child may thrive and do well, the weak and delicate in most cases will not.* It is of great importance, therefore, that the parent superintend the dietetic management of the child herself—at all events, for the early months—

* “Ce mode d'alimentation que je condamne absolument et sans réserve à Paris et dans les villes, et que je tolère à peine dans les campagnes, malgré les exemples favorables que l'on peut citer : ces succès isolés ne prouvent rien. Je ne prétends pas qu'il soit impossible d'élever certains enfants de cette manière; mais c'est mettre gratuitement une foule de chances contre soi, dans une entreprise qui, dans les circonstances les plus avantageuses, présente toujours d'assez grandes difficultés par elle-même.” — M^{ons.} AL. DONNÉ, *sur l'Allaitement*, p. 170.

and that the rules laid down for her guidance be strictly followed out.

THE KIND OF ARTIFICIAL FOOD UNTIL THE FIRST TEETH APPEAR. — It should be as like the breast milk as possible. This is obtained by a mixture of cow's milk, water, and loaf-sugar, in the following proportions : —

Fresh cow's milk, two thirds;

Water, or thin barley water, one third;

Loaf sugar, a sufficient quantity to sweeten.

This is the best diet children can take until two or three teeth are cut. They will be found to enjoy more perfect health, and thrive far better, when nourished exclusively upon this simple aliment, than upon any other nourishment that can be given. In early infancy mothers are too much in the habit of giving thick gruel, panada, biscuit food, and such matters, thinking that a diet of a lighter and thinner kind will not nourish. This is a mistake, for these preparations are much too solid; they overload the stomach, and cause indigestion, flatulence, and griping. These create a necessity for purgative medicines and carminatives, which again weaken digestion, and, by unnatural irritation, perpetuate the evils which render them necessary. Thus many infants are kept in a continual round of repletion, indigestion, and purging, with the administration of

cordials and narcotics, who, if their aliment were in quantity and quality suited to their digestive powers, would need no aid from physic or physicians.

In preparing this diet, it is highly important to obtain pure milk, not previously skimmed, or mixed with water; and in warm weather just taken from the cow. It should not be mixed with the water and sugar until wanted, and no more made than will be taken by the child at the time, for it must be prepared fresh at every meal. It is best not to heat the milk over the fire; but let the water be in a boiling state when mixed with it, and thus given to the infant tepid or lukewarm.

As the infant advances in age, the proportion of milk may be gradually increased; this is necessary after the second month, when three parts of milk to one of water may be allowed. But there must be no change in the kind of diet if the health of the child is good, and its appearance perceptibly improving. Nothing is more absurd than the notion, that in early life children require a variety of food; only one kind of food is prepared by nature, and it is impossible to transgress this law without marked injury.

Cow's milk sometimes unfortunately disagrees with an infant, even from birth. Let it not, however, be given up as unsuitable, except after a *fair* trial. Sometimes all that is required to make it agree is to alter somewhat the proportions

of the milk and water, rather more of the one and less of the other. Sometimes, particularly in large towns, the secret of disagreement exists in the impurity of the milk itself; sometimes it arises from a want of due care in its preparation, or perhaps in the mode of administering it. But when it is found, notwithstanding a due and rigid attention to all these points, that it is still unsuitable, then ass's milk may be given as a substitute. This must be diluted with one-third its quantity of water, and the same care must be observed in its preparation as with the former kind of nourishment. I recollect a case strikingly showing the value of this aliment:—

A lady whom I have attended in four confinements, is unable from defect in her nipples to suckle her children. Her *first child* had a healthy wet-nurse, and is now a fine healthy lad. The *second*, a girl, was unfortunate in her wet-nurse, she being of a strumous and unhealthy constitution, although to a casual observer having the appearance of sound health: the child, consequently, lived only three months, and the nurse died of a rapid consumption shortly after. This, I am sorry to say, discouraged the mother from adopting wet-nurse suckling for the *third child*; and an artificial diet of cow's milk was resorted to. The third day from commencing this plan, flatulence, griping, purging, and vomiting came on, one symptom quickly following the other;

the child wasted, and on the sixth day had several convulsive fits. The diet was changed to ass's milk, and in less than twelve hours the sickness and purging ceased; the flatulence was relieved; the motions from being green, watery, and passed with violence and pain, became of a healthy consistence and colour, and the screaming ceased; the symptoms did not return; the infant thrived upon its new diet, and is now a fine healthy girl. Again this patient was confined, and of her *fourth child*. A wet-nurse was again declined; an ass could not be immediately obtained, and therefore again cow's milk was resorted to. In two or three days precisely the same train of symptoms came on with which the third child had been affected, and which again gave way upon following up the same plan of diet — the substitution of the ass's milk for that of the cow.

The evident conclusion from the foregoing case is this, that the breast-milk of a healthy woman is incomparably the most suitable diet for the infant; but that, if she be not of a healthy constitution, it may be destructive to the child; and that when pure and wholesome breast-milk cannot be obtained, and cow's milk is found to disagree, ass's milk may sometimes be resorted to with the happiest results.

An infant will generally consume a quart, or a little more, of ass's milk in the four-and-twenty hours; and as this quantity is nearly as much as

the animal will give, it is best to purchase an ass for the express purpose. The foal must be separated from the mother, and the forage of the latter carefully attended to, or the milk will disagree with the child.

Sometimes the mother's breast and every description of milk is rejected by the child; in which case recourse must be had to sago boiled down to a jelly (for an hour or more), and a little loaf-sugar added — or to veal, or weak mutton broth, or beef-tea, clear and free from fat, mixed with a very small quantity of farinaceous food, carefully passed through a sieve before it is poured into the sucking-bottle.

The mode of administering it. — There are two ways — by the spoon, and by the nursing-bottle. The first of these ought never to be employed at this period, inasmuch as the power of digestion in infants is very weak, and their food is designed by nature to be taken very slowly into the stomach, being procured from the breast by the act of sucking; in which act a great quantity of saliva is secreted, and being poured into the mouth, mixes with the milk, and is swallowed with it. This process of nature, then, should be emulated as far as possible; and food for this purpose should be imbibed by suction from a nursing-bottle: it is thus obtained slowly, and the suction employed secures the mixture of a

due quantity of saliva, which has a highly important influence on digestion.

Too much care cannot be taken to keep the bottle perfectly sweet. For this purpose there should always be two in the nursery, to be used alternately; and, if any food remain after a meal, it must be emptied out. The bottle always to be scalded out after use. The flat glass nursing-bottle itself is too well known to need description: it may be well, however, to say a word about the teat that covers its narrow neck, and through which the infant sucks the food.

If the artificial or prepared cow's teat is made use of, it should be so attached to the bottle that its extremity does not extend beyond its apex more than half or three quarters of an inch; for if it projects more than this, the child will get the sides of the teat so firmly pressed together between its gums, that there will be no channel for the milk to flow through. Many mothers prefer using washed chamois leather instead of the teat, which is firmly attached to the end of the bottle by thread, and a small opening made at the extremity for the milk to pass through. This is a good substitute; but a fresh piece of leather must be made use of daily, otherwise the food will be tainted, and the child's bowels deranged. Both teat and wash-leather should have placed in them a small conical piece of sponge, to prevent the possibility of too rapid a flow of the milk.

The most cleanly and convenient apparatus is a cork nipple, upon the plan of M. Darbo, of Paris, fixed in the sucking-bottle.* The cork, being of a particularly fine texture, is supple and elastic, yielding to the infant's lips while sucking, and is much more durable than the teats ordinarily used.

Whatever kind of bottle or teat is used, however, it must never be forgotten that cleanliness is absolutely essential to the success of this plan of rearing children.

The quantity of food to be given at each meal.— This must be regulated by the age of the child and its digestive power. A little experience will soon enable a careful and observing mother to determine this point. As the child grows older, the quantity of course must be increased.

The chief error in rearing the young is over-feeding, and a most serious one it is; but which may be easily avoided by the parent pursuing a systematic plan with regard to the hours of feeding, and then only yielding to the indications of appetite, and administering the food slowly, in small quantities at a time. This is the only way effectually to prevent indigestion and bowel complaints, and the irritable condition of the nervous system, so common in infancy, and secure to the infant healthy nutrition, and consequent strength of constitution. As has been well observed,

* This is sold by Weiss and Son, 62. Strand.

“Nature never intended the infant’s stomach to be converted into a receptacle for laxatives, carminatives, antacids, stimulants, and astringents; and when these become necessary, we may rest assured that there is something faulty in our management, however perfect it may seem to ourselves.”

The frequency of giving food. — This must be determined, as a general rule, by allowing such an interval between each meal as will insure the digestion of the previous quantity, and this may be fixed at about every three or four hours. If this rule is departed from, and the child receive a fresh supply of food every hour or so, time will not be given for the digestion of the previous quantity; and, as a consequence of this process being interrupted, the food passing on into the bowel undigested, will there ferment and become sour; will inevitably produce colic and purging, and in no way contribute to the nourishment of the child.

The posture of the child when fed. — It is important to attend to this. It must not receive its meals lying; the head should be raised on the nurse’s arm — the most natural position, and one in which there will be no danger of the food going the wrong way, as it is called. After each meal the little one should be put in its cot, or repose

on its mother's knee, for at least half an hour. This is essential for the process of digestion, as exercise is important at other times for the promotion of health.

THE KIND OF ARTIFICIAL FOOD SUITABLE AFTER THE FIRST TEETH HAVE APPEARED. — As soon as the child has got any teeth, and about the sixth or seventh month one or two will make their appearance, the artificial food may be increased in quantity and strength; and may now be given with the spoon or not. If the child has hitherto been living upon cow's milk and water, the latter may be discontinued and pure milk alone given, to be continued for a month or two longer if the child continue to thrive.

More solid food, however, will now in most cases be demanded, such as the mixture of some farinaceous preparation with milk. The following in the order in which they stand may be resorted to, and that fixed upon which suits best:—

Hard's Farinaceous Food.—Mix a tablespoonful with a small quantity of cold water, add half a pint of boiling water, constantly stirring, then boil it eight minutes, strain through a sieve, add a small quantity of pure and fresh cow's milk, loaf sugar, and a few grains of salt. This preparation is recommended in preference to biscuit powder, and many other articles of diet of this class, from the deservedly high character it has obtained; and so

long as it continues to be carefully prepared by the maker, it will be found a very valuable article of food for infants.

Leman's Tops and Bottoms.—Steep in boiling water a top and bottom for ten minutes, add a little pure and fresh cow's milk, strain through a sieve, and mix with it a few grains of salt. This food sometimes agrees better when prepared as follows:—Have a saucepan on the fire with exactly the quantity of water required; when fast boiling throw into it a top and bottom; let it boil five or six minutes; it will then be a clear smooth jelly, and when strained nothing will remain in the sieve; thin it with a little fresh and pure cow's milk, and add a few grains of salt.

Sago.—Take a dessert spoonful of pearl sago, macerate it for two hours in half a pint of water in a pan on the hob, and then boil it for a quarter of an hour, stirring it well; then strain through a sieve and sweeten with a little loaf sugar, and add a few grains of salt; milk is to be added or not, as it is found to agree best.

Arrow-root.—Take a dessert spoonful of arrow-root powder, and carefully mix it with a little cold water in a basin with a spoon. Then pour upon it half a pint of boiling water, assiduously stirring until it is thoroughly mixed. Boil it for five minutes, add a little fresh and pure cow's milk, and sweeten with loaf sugar.

: *When one or two of the large grinding teeth have*

appeared, beef-tea, veal or mutton tea, or chicken broth may be given once in the day. As these animal preparations are not always properly made, and then disagree, the following formulæ are given, extracted from Dr. A. T. Thompson's work on the Domestic management of the Sick Room:—

Beef Tea.—“Take half a pound of good rump-steak, cut it into thin slices, and spread these in a hollow dish; sprinkle a little salt over them, and pour upon the whole a pint of boiling water. Having done this, cover the dish with a plate, and place it near the fire for an hour, then throw the sliced beef and the water into a pan, cover it, and boil for fifteen minutes, after which throw the whole contents of the pan upon a sieve, so as to separate the beef-tea from the meat. The tea must be reduced to the strength required by the addition of boiling water.”

Veal Tea.—“This may be made in the same manner as beef-tea, using a pound of fillet of veal freed from fat, and sliced, and a pint and a half of boiling water, and boiling for half an hour instead of fifteen minutes. It may also be made with the same quantity of the fleshy part of a knuckle of veal.

“By boiling down the knuckle of veal-tea, whilst the meat is in it, to one half, and straining, the tea gelatinizes, and when it is poured into small cups it will keep good for several days. By adding an equal quantity, or more, of boiling water to a cupful

of this jelly, a moderate quantity of veal-tea for one individual is prepared in two minutes."

Mutton Tea. — "This is prepared with a pound of good mutton, freed from the fat and cut in thin slices, and a pint and a half of soft water, in the same manner as beef-tea, but it requires to be boiled after the maceration, for half an hour, before it is strained through a sieve."

Chicken Tea. — "Take a small chicken, free it from the skin and from all the fat between the muscles, and having divided it longitudinally into two halves, remove the whole of the lungs, and every thing adhering to the back and the side bones. Then cut it, bones and muscles, by means of a strong sharp knife, into as thin slices as possible; and having put these into a pan with a sufficient quantity of salt, pour over it a quart of boiling water; cover the pan, and boil with a slow fire for two hours. Then put the pan upon the hob for half an hour, and strain off the tea through a sieve."

As the child advances in age, that is to say, after a month or two from the time we are now referring to, and as an introduction to the use of a more completely animal diet, a portion, now and then, of a soft boiled egg may be given; and by and by a small bread pudding, made with one egg in it, may form the dinner meal.

Nothing is more common than for parents during this period to give their children *animal*

food. This is a great error. It has been well said by Sir James Clark, that "To feed an infant with animal food before it has teeth proper for masticating it, shows a total disregard to the plain indications of nature, in withholding such teeth till the system requires their assistance to masticate solid food. And the method of grating and pounding meat, as a substitute for chewing, may be well suited to the toothless octogenarian, whose stomach is capable of digesting it; but the stomach of a young child is not adapted to the digestion of such food, and will be disordered by it." Upon the same subject Dr. John Clarke observes in his Commentaries:—"If the principles already laid down be true, it cannot reasonably be maintained that a child's mouth without teeth, and that of an adult, furnished with the teeth of carnivorous and graminivorous animals, are designed by the Creator for the same sort of food. If the mastication of solid food, whether animal or vegetable, and a due admixture of saliva, be necessary for digestion, then solid food cannot be proper, when there is no power of mastication. If it is swallowed in large masses it cannot be masticated at all, and will have but a small chance of being digested; and in an undigested state it will prove injurious to the stomach and to the other organs concerned in digestion, by forming unnatural compounds. The practice of giving solid food to a toothless

child, is not less absurd, than to expect corn to be ground where there is no apparatus for grinding it. That which would be considered as an evidence of idiotism or insanity in the last instance, is defended and practised in the former. If, on the other hand, to obviate this evil, the solid matter, whether animal or vegetable, be previously broken into small masses, the infant will instantly swallow it, but it will be unmixed with saliva. Yet in every day's observation it will be seen, that children are so fed in their most tender age; and it is not wonderful that present evils are by this means produced, and the foundation laid for future disease."

The diet pointed out, then, is to be continued until the second year. Great care, however, is necessary in its management; for this period of infancy is ushered in by the process of teething, which is commonly connected with more or less of disorder of the system. Any error, therefore, in diet or regimen is now to be most carefully avoided. 'Tis true that in the infant, who is of a sound and healthy constitution, in whom, therefore, the powers of life are energetic, and who up to this time has been nursed upon the breast of its parent, and now commences an artificial diet for the first time, disorder is scarcely perceptible, unless from the operation of very efficient causes. Not so, however, with the child who from the first hour of its birth has been nourished upon

artificial food. Teething under such circumstances is always attended with more or less of disturbance of the frame, and disease of the most dangerous character sometimes ensues. It is at this age, too, that all infectious and eruptive fevers are most prevalent; worms often begin to form, and diarrhoea, thrush, rickets, and cutaneous eruptions, manifest themselves, and the foundation of strumous disease is originated or developed. A judicious management of diet will prevent some of these complaints, and mitigate the violence of others when they occur.

The kind of diet most suitable under the different complaints to which infants are liable. — Artificial food, from mismanagement and other causes, will now and then disagree with the infant. The stomach and bowels are thus deranged, and medicine is resorted to, and again and again the same thing occurs.

This is wrong, and but too frequently productive of serious and lasting mischief. *Alteration of diet*, rather than the exhibition of medicine, should, under these circumstances, be relied on for remedying the evil. Calomel, and such like remedies, "the little powders of the nursery," ought not to be given on every trivial occasion. More mischief has been effected, and more positive disease produced, by the indiscriminate use of the above powerful drug, either alone or in

combination with other drastic purgatives, than would be credited. Purgative medicines ought at all times to be exhibited with caution to an infant, for so delicate and susceptible is the structure of its alimentary canal, that disease is but too frequently caused by that which was resorted to in the first instance as a remedy. The bowels should always be kept free; but then it must be by the mildest and least irritating means.

It is a very desirable thing, then, to correct the disordered conditions of the digestive organs of an infant, if possible, without medicine; and much may be done by changing the nature, and sometimes by simply diminishing the quantity of food.

A diarrhœa, or looseness of the bowels, may frequently be checked by giving, as the diet, sago thoroughly boiled in very weak beef-tea, with the addition of a little milk. The same purpose is frequently to be answered by two thirds of arrow-root with one third of milk, or simply thin arrow-root made with water only; or, if these fail, Hard's Farinaceous Food mixed with boiled milk.

Costiveness of the bowels may frequently be removed by changing the food to tops and bottoms steeped in boiling water, and a small quantity of milk added. Or Densham's Farinaceous Food (which is a mixture of three parts of the best wheat flour and one part of the best barley-meal) may be used. The barley makes this pre-

paration somewhat laxative. Mix a table spoonful with a small quantity of cold water, add half a pint of boiling water, constantly stirring, then boil eight minutes, strain through a sieve, add a small quantity of unboiled, pure, and fresh cow's milk, a little loaf sugar, and a few grains of salt.

Flatulence and griping generally arise from an undue quantity of food, which passing undigested into the bowels, they are thus irritated and disturbed. This may be cured by abstinence alone. The same state of things may be caused by the food being over-sweetened — sometimes from its not being prepared fresh at every meal, or even from the nursing-bottle or vessel in which the food is given not having been perfectly clean. In this case weak chicken-broth or beef-tea freed from fat, and thickened with soft boiled rice or arrow-root, may be given.

CHAPTER IX.

HINTS FOR THE GENERAL MANAGEMENT OF
THE INFANT'S HEALTH.

SECT. I. — SLEEP.

FOR three or four weeks after birth the infant sleeps, more or less, day and night, only waking to satisfy the demands of hunger; at the expiration of this time, however, each interval of wakefulness grows longer, so that it sleeps less frequently, but for longer periods at a time.

This disposition to repose in the early weeks of the infant's life must not be interfered with; but this period having expired (about the third month), great care is necessary to induce regularity in its hours of rest, otherwise too much will be taken in the day time, and restless and disturbed nights will follow. The child should be brought into the habit of sleeping in the middle of the day, and for about two hours, more or less (say from eleven to one o'clock), and again for half an hour or an hour about three o'clock, not later; for if put to rest at a later period of the day, it will inevitably cause a bad night. And it is now important that he should not be put to

sleep immediately after a meal, as the process of digestion would cause the sleep to be uneasy, and therefore not so refreshing. It is right to observe, that the amount of sleep required necessarily differs somewhat in different children. An observant parent, however, will soon determine for herself what is required, and the regulations laid down above will be found generally applicable. The chamber should always be darkened, and the room kept as free from noise as possible.

During the lying-in month the infant should sleep with its parent. The low temperature of its body, and its small power of generating heat, render this necessary. If it should happen, however, that the child has disturbed and restless nights, it must be immediately removed to the bed and care of another female, to be brought to its mother at an early hour in the morning for the purpose of being nursed. This is necessary for the preservation of the mother's health, which through sleepless nights would of course be soon deranged, and the infant would also suffer from the influence which such deranged health would have upon the milk.

When a month has elapsed, the child, if healthy, may sleep alone in a cradle or cot, under the charge of its nurse maid, care being taken that it has a sufficiency of clothing,—that the room in which it is placed is sufficiently warm, certainly not under 60°,—and that the position of the cot itself

is not such as to be exposed to currents of cold air. It is essentially necessary to attend to these points; since the faculty of producing heat, and consequently the power of maintaining the temperature, is less during sleep than at any other time, and therefore exposure to cold is especially injurious. It is but too frequently the case that inflammation of some internal organ will occur under such circumstances, without the true source of the disease ever being suspected. Here, however, a frequent error must be guarded against,—that of covering up the infant in its cot with too much clothing,—throwing over its face the muslin handkerchief,—and, last of all, drawing the drapery of the bed closely together. The object is to keep the infant sufficiently warm with pure air; it therefore ought to have free access to its mouth, and the atmosphere of the whole room should be kept sufficiently warm to allow the child to breathe it freely: in winter, therefore, there must always be a fire in the nursery.

The child up to two years old, at least, should sleep upon a feather bed, for the reasons referred to above. The pillow, however, after the sixth month, should be made of horsehair; for at this time teething commences, and it is highly important that the head should be kept cool.

Great care must be taken to keep the bed and bed-clothes of the infant perfectly sweet and clean. They should frequently be taken out and exposed

to the air. A very excellent means to prevent their being soiled is the use of the Mackintosh sheeting.

SECT. II. — BATHING AND CLEANLINESS.

Too much attention cannot be paid to cleanliness; it is essential to the infant's health. There is constantly exhaling from the innumerable pores of the skin a large amount of fluid and solid matter, commonly called the perspiration. The fluid part of this passes off, and mixes with the atmosphere, but a great portion of the solid part is left adhering to the skin. The latter, if not removed, after a time so accumulates, as to obstruct the pores, and necessarily impedes any further exhalation. The result is disordered health, or perhaps an obstinate and troublesome eruption on the skin itself. From this explanation the necessity and value of cleanliness to the health must be self-evident. Besides however this important consideration, Dr. Eberle very justly observes: "The agreeable feelings which entire cleanliness is calculated to produce, as well as the excellent moral influence which it is capable of exerting on the mind, are in themselves of sufficient moment to claim for it the most solicitous attention. Children who are early accustomed to the comfortable and healthful impressions of washing and bathing, will rarely in after life neglect the observance of per-

sonal cleanliness; and those, on the contrary, who are neglected in this respect during childhood, will seldom manifest a proper regard for this physical virtue, in the subsequent stages of their lives."

The principal points to which especial attention must be paid by the parent are the following: —

Temperature of the Water.—In the early weeks of the infant's life, it should as soon as taken from its bed in the morning be washed in warm water from 96° to 98°, and be put into a bath of the same temperature for a few minutes every evening before it is put to rest. To bathe a delicate infant of a few days or even weeks old in cold water with a view "to harden" the constitution (as it is called), is the most effectual way to undermine its health and entail future disease. By degrees, however, the water with which it is sponged in the morning should be made tepid, the evening bath being continued warm enough to be grateful to the feelings.

A few months having passed by, the temperature of the water may be gradually lowered until cold is employed, with which it may be sponged, or it may be even plunged into it, every morning during summer. If plunged into cold water, however, it must be kept in but a minute; for at this period especially, the impression of cold continued for any considerable time depresses the vital energies, and prevents that healthy glow on the surface which usually follows the momentary and

brief action of cold, and upon which its usefulness depends. With some children, indeed, there is such extreme delicacy and deficient reaction as to render the cold bath hazardous; no warm glow over the surface takes place when its use inevitably does harm; its effects, therefore, must be carefully watched.

Drying the skin. — The surface of the skin should always be carefully and thoroughly rubbed dry with flannel, — indeed, more than dry, for the skin should be warmed and stimulated by the assiduous gentle friction made use of. For this process of washing and drying must not be done languidly, but briskly and expeditiously; and will then be found to be one of the most effectual means of strengthening the infant. It is especially necessary carefully to dry the arm-pits, groins, and nates; and if the child is very fat, it will be well to dust over these parts with hair-powder or starch contained in a muslin bag: this prevents excoriations and sores, which are frequently very troublesome. Soap is only required to those parts of the body which are exposed to dirt.

I cannot refrain from quoting a passage here, which I recommend to the consideration of every parent, as no less philosophical than practically true. “During this daily process of washing, which should not be done languidly, but briskly

and expeditiously, the mind of the little infant should be amused and excited. In this manner dressing, instead of being dreaded, as a period of daily suffering, instead of being painful, and one continued fit of crying, will become a recreation and amusement. In this, treat your infant, even your little infant, as a sensitive and intelligent creature. Let every thing which *must* be done, be made not a source of pain, but of pleasure, and it will then become a source of health, and that both of body and mind; a source of exercise to the one, and of early discipline to the other. Even at this tender age, the little creature may be taught to be patient and even gay, under suffering. Let it be remembered that every act of the nurse towards the little infant is productive of good or evil upon its character as well as health. Even the act of washing and clothing may be made to discipline and improve the temper, or to try and impair it, and may therefore be very influential on its happiness in future life. For thus it may be taught to endure affliction with patience and even cheerfulness, instead of fretfulness and repining. And every infliction upon the temper is also an infliction upon the body and health of the little child. The parent and the nurse should, therefore, endeavour to throw her own mind into her duties towards her offspring. And in her intention of controlling her infant's temper, let her not forget that the first step is to control her own.

How often have I observed an unhappy mother the parent of unhappy children!"*

Napkins. — The frequency of the discharges from the bowels and bladder requires a frequent change of napkins. A nurse cannot be too careful of this duty from the first, so that she may be enabled to discover the periods when these discharges are about to take place, that she may not only anticipate them, but teach the child, at a very early age, to give intelligent warning of its necessities. Thus a habit of regularity with regard to these functions will be established, which will continue through life, and tend greatly to the promotion of health. As the child grows older, the system of cleanliness must in no particular be relaxed; the hair must be regularly brushed and combed, and the ears, the eyes, the nose, and the openings of the passages from the interior of the body, as well as the surface of the skin generally, must be kept perfectly clean. The careful adoption of these means will be found the best preservative against those eruptive disorders which are so frequent and troublesome during the period of infancy.

* Letters to a Mother, p. 89.

SECT. III. — CLOTHING.

INFANTS are very susceptible of the impressions of cold; a proper regard, therefore, to a suitable clothing of the body is imperative to their enjoyment of health. Unfortunately, an opinion is prevalent in society that the tender child has naturally a great power of generating heat and resisting cold; and from this popular error have arisen the most fatal results. This opinion has been much strengthened by the insidious manner in which cold operates on the frame, the injurious effects not being always manifest during or immediately after its application, so that but too frequently the fatal result is traced to a wrong source, or the infant sinks under the action of an unknown cause.

The power of generating heat in warm-blooded animals is at its minimum at birth, and increases successively to adult age; young animals, instead of being warmer than adults, are generally a degree or two colder, and part with their heat more readily; facts which cannot be too generally known. They show how absurd must be the folly of that system of "hardening" the constitution, as it is called, which induces the parent to plunge the tender and delicate child into the cold bath at all seasons of the year, and freely expose it to the cold cutting currents of an

easterly wind, with the lightest clothing—cruel as absurd.

The principles which ought to guide a parent in clothing her infant are as follows:—

The material and quantity of the clothes should be such as to preserve a sufficient proportion of warmth to the body; regulated, therefore, by the season of the year, and the delicacy or strength of the infant's constitution. In effecting this, I would caution the parent to avoid the too common, but frequently fatal, practice of leaving bare, at all seasons of the year, the neck, upper part of the chest and arms, of her little one: such exposure in damp and cold weather being a fruitful source of croup, inflammation of the lungs, and other serious complaints. At the same time, a prevalent error in the opposite extreme must be guarded against; that of enveloping the child in innumerable folds of warm clothing, and keeping it constantly confined to very hot and close rooms; since nothing tends so much to enfeeble the constitution, to induce disease, and render the skin highly susceptible of the impressions of cold, and thus produce those very ailments which it is the chief intention to prevent. The infant's clothing should possess lightness as well as warmth, and therefore flannel and calico are the best materials to use. The skin however in the early months is so delicate, that a shirt of fine linen must at first be worn under the flannel; but as the child

grows older the flannel is desirable next the skin, giving by its roughness a gentle stimulus to it, and thus promoting health.

They should be so made as to put no restrictions to the free movements of all parts of the child's body—so loose and easy as to permit the insensible perspiration to have a free exit, instead of being confined and absorbed by the clothes, and held in contact with the skin till it gives rise to irritation. Full room too should be allowed for growth, which is continually and rapidly going on, and particularly should this be the case round the throat, armholes, chest, and wrists, so that they may be easily let out. The construction of the dress should be so simple as to admit of being quickly put off and on, since dressing is irksome to an infant, causing it to cry, and exciting as much mental irritation as it is capable of feeling. Pins should be wholly dispensed with, their use being hazardous through the carelessness of nurses, and even through the ordinary movements of the infant itself. This leads me to make one general remark applicable not only to the clothing but also to other circumstances in the economy of an infant—*the babe can itself give no explanation of the inconveniences it suffers.* “ Bearing this in mind, and remembering how continually adults are annoyed by trifles which they have the perception to discover and the ability to remove, it will readily be acknowledged that nothing is too in-

significant for the constant and regular attention of a mother." For example:—articles of dress contract, or otherwise lose their shape; a ruck forms, a hook bends, or a button turns and presses upon the flesh: any one of these accidents occasions pain, and frets the temper of an infant.

The clothing should be changed daily; this is eminently conducive to health. Wet and soiled linen should be immediately exchanged for that which is clean and dry. Unless these directions are attended to, washing will, in a great measure, fail in its object, especially in insuring freedom from skin diseases. The wardrobe, therefore, must be sufficiently large to admit of this; and where pecuniary means are not abundant, the mother, in making her baby linen, should remember that quantity is more important than quality.

With regard to *caps*, they should be made of thin material, with no under cap. The head is to be kept cool, not warm. As soon as the hair begins to grow, provided it is not very cold weather, caps may with advantage be left off altogether, night as well as day.

During the first seven or eight months, the child's clothes extend considerably beyond the legs and feet; and up to this period, therefore, they are completely protected from cold and the variations of temperature. But from this time, when short-coating, as it is styled, is commenced,

cotton or fine flannel socks should be put on in warm weather, and fine angola stockings during cold weather. Shoes also must now be worn, made of light and pliable materials, and large enough to prevent all constraint; neither too roomy, nor too tight. Some persons object to the use of shoes, believing that they interfere with the child's learning to walk: if, however, they are large, and of pliant materials, this cannot be; whilst it must be remembered, on the other hand, that they are useful not only in protecting the feet from cold, but from injury also, for accidents from pins and needles running into the feet are not at all uncommon where children are allowed to walk without them. The change to short-clothing should always be avoided in cold weather.

SECT. IV.—AIR AND EXERCISE.

THE respiration of a pure air is at all times, and under all circumstances, indispensable to the health of the infant. The nursery, therefore, should be large, well ventilated, in an elevated part of the house, and so situated as to admit a free supply both of air and light. For the same reasons, the room in which the infant sleeps should be large, and the air frequently renewed; for nothing is so prejudicial to its health as sleeping

in an impure and heated atmosphere. The practice, therefore, of drawing thick curtains closely round the bed is highly pernicious; they only answer a useful purpose when they defend the infant from any draught or current of cold air.

The proper time for taking the infant into the open air must, of course, be determined by the season of the year, and the state of the weather. Sir James Clark observes, that "a delicate infant, born late in the autumn, will not generally derive advantage from being carried into the open air, in this climate, till the succeeding spring; and if the rooms in which he is kept are large, often changed, and well ventilated, he will not suffer from the confinement, while he will, most probably, escape catarrhal affections, which are so often the consequence of the injudicious exposure of infants to a cold and humid atmosphere." If, however, the child is strong and healthy, no opportunity should be lost of taking it into the open air at stated periods, experience daily proving that it has the most invigorating and vivifying influence upon the system. Regard, however, must always be had to the state of the weather; and to a damp condition of the atmosphere the infant should never be exposed, as it is one of the most powerful exciting causes of consumptive disease. The nursemaid, too, should not be allowed to loiter and linger about, thus exposing the infant unnecessarily, and for an undue length of time: this

is generally the source of all the evils which accrue from taking the babe into the open air.

An infant, too, should never be exposed to an easterly wind, more productive I believe of the numerous cases of inflammation of the lungs than any other cause. "What have you got there? a baby?" hastily said an old but experienced physician to a young mother one bright sun-shiny morning in spring as she was carrying out her first-born, "go home—go home—the wind is in the east. Never carry abroad a young infant in an easterly wind. That's a golden maxim." Its remembrance and adoption would save the lives of thousands.

Exercise, also, like air, is essentially important to the health of the infant. Its first exercise, of course, will be in the nurse's arms: and here I would observe that *the mode of carrying* an infant must be carefully attended to. Upon this subject I cannot do better than quote the words of Dr. Eberle.* He very truly remarks, that "the spine and its muscles seldom acquire sufficient strength and firmness, before the end of the third month, to enable the child to support its body in an upright position, without inconvenience or risk of injury. Until this power is manifestly acquired, the infant should not be carried or suffered to sit

* Eberle on the Diseases and Physical Education of Children, p. 45.

with its body erect, without supporting it in such a manner as to lighten the pressure made on the spine, and aid it in maintaining the upright posture of its head and trunk." He accordingly advises that "at first (a few days after birth) the infant should be taken from its cradle or bed two or three times daily, and laid on its back, upon a pillow, and carried gently about the chamber."... "After the third or fourth week, the child may be carried in a reclining posture on the arm of a careful nurse, in such a way as to afford entire support to the body and head. This may be done by reclining the infant upon the fore-arm, the hand embracing the upper and posterior part of the thighs, whilst its body and head are supported by resting against the breast and arm of the nurse. When held in this way, it may be gently moved from side to side, or up and down, while it is carefully carried through a well ventilated room." This plan of passive exercise must be followed until the completion of the third month, when the child will have acquired a sufficient degree of muscular power to maintain itself in a sitting posture. In this position it may be carried about for a short time twice or thrice daily, provided the spine and head be supported by the nurse—"an aid which can seldom be prudently dispensed with before the child is six or seven months old."

In the mean time, when two or three months old, and it begins to sleep less during the day, the

infant will greatly enjoy being occasionally placed upon a soft mattress or sofa, and allowed to roll and kick about at its pleasure. Such exercise will tend much to develop the powers of its muscular system; it will also learn to use its limbs and walk earlier than if deprived of this freedom of action.

It is a very common practice for a nurse to support a young infant upright on her knee, and begin violently to jolt it up and down—violent, indeed, to the delicate structure of the infant's tender frame. This is done thoughtlessly, and in the belief that it is a source of enjoyment, instead of manifestly inflicting pain on the child. Gentle and cautious tossing, or rather dandling to and fro, is really agreeable to a child, and can never, therefore, be objectionable: but the rough treatment alluded to, a mother must carefully prevent. The same precaution, it is necessary to observe, in regard to the rocking an infant in a cradle. I believe that gentle and cautious rocking is a soothing and useful exercise to a child, but it is quite otherwise when rough, and long continued.

By and by, the child will make its first attempts to walk. Now, it is important that none of the many plans which have been devised to teach a child to walk, should be adopted—the go-cart, leading-strings, &c.; their tendency is mischievous; and flatness of the chest, confined lungs, distorted spine, and deformed legs, are so many

evils which often originate in such practices. This is explained by the fact of the bones in infancy being comparatively soft and pliable, and if prematurely subjected by these contrivances to carry the weight of the body, they yield just like an elastic stick bending under a weight, and as a natural consequence become curved and distorted. It is highly necessary that the young and inexperienced mother should recollect this fact, for the early efforts of the little one to walk are naturally viewed by her with so much delight, that she will be apt to encourage and prolong its attempts, without any thought of the mischief which they may occasion; thus many a parent has had to mourn over the deformity which she has herself created. It may be as well here to remark, that if such distortion is timely noticed, it is capable of correction, even after evident curvature has taken place. It is to be remedied by using those means that shall invigorate the frame, and promote the child's general health (a daily plunge into the cold bath, or sponging with cold salt water, will be found signally efficacious), and by avoiding the original cause of the distortion—never allowing the child to get upon his feet. The only way to accomplish the latter intention, is to put both the legs into a large stocking; this will effectually answer this purpose, while, at the same time, it does not prevent the free and full exercise of the muscles of the legs.

After pursuing this plan for some months, the limbs will be found no longer deformed; the bones too have acquired firmness, and the muscles strength; and the child may be permitted to get upon his feet again without any hazard of renewing the evil.

The best mode of teaching a child to walk, is to let it teach itself, and this it will do readily enough. It will first learn to crawl: this exercises every muscle in the body, does not fatigue the child, throws no weight upon the bones, but imparts vigour and strength, and is thus highly useful. After a while, having the power, it will wish to do more: it will endeavour to lift itself upon its feet by the aid of a chair, and, though it fail again and again in its attempts, it will still persevere until it accomplish it. By this it learns, first, to raise itself from the floor; and secondly, to stand, but not without keeping hold of the object on which it has seized. Next it will balance itself without holding, and will proudly and laughingly show that it can stand alone. Fearful, however, as yet of moving its limbs without support, it will seize a chair or anything else near it, when it will dare to advance as far as the limits of its support will permit. This little adventure will be repeated day after day with increased exultation; when after numerous trials, he will feel confident of his power to balance himself, and he will run alone. Now time is required

for this gradual self-teaching, during which the muscles and bones become strengthened; and when at last called upon to sustain the weight of the body, are fully capable of doing so.

SECT. V. — APERIENT MEDICINE.

ONE of the greatest errors of the nursery is the too frequent and indiscriminate exhibition by the mother or nurse of purgative medicine. Various are the forms in which it is given: perhaps among a certain class, the little powder obtained from the chemist is the most frequent, as it is certainly the most injurious, from its chief ingredient, generally, being calomel. With such persons the choice of the aperient, or the dose, or the exact condition of the health, or whether it is an aperient at all that is required, are considerations which never for one moment enter their minds; a little medicine is thought necessary, because it is evident the child is not well, and a purgative, or a little white powder is forthwith given. For instance, I have known a nurse thoughtlessly give a large dose of magnesia to an infant that had been suffering from a diarrhoea of some days' standing, and cause death. Now this medicine is one of the most useful and harmless that can be given to a child when indicated, — when prescribed in a dose suited to the age, — and when the proper time is fixed upon for

its exhibition; in the foregoing case every thing forbad its use, but none of these points were considered. Again, a mother too frequently falls into the too common error of repeating aperient medicine to remove those very symptoms which its previous exhibition has itself produced. Some incidental pain and uneasiness, some slightly greenish appearance of the motions, leads to the belief that more purging is necessary, when in fact both circumstances have probably been induced by the irritation caused by the purgatives already too freely administered. How often is this the case, during the first week or ten days of the infant's life, when the nurse doses the child with tea-spoonful after tea-spoonful of castor oil, for the relief of pain, which her repeated doses of medicine have alone created. It would be well if all who have the management of children were to remember whenever they open the medicine-chest, that "the great art of medicine is the proper application of the proper medicine in the proper dose, at the proper time."

For the information of a young mother it is important to mention that the bowels of an infant in health should be relieved two, three, or four times in the twenty-four hours; that the stools should be of the consistence of thin mustard, of a lightish yellow colour, free from any fetid or acid smell, destitute of lumps or white curdy matter, and passed without pain or any considerable

quantity of wind ; and that as the child grows older, while the stools diminish in number, they become darker in colour.

The following purgatives are the only ones that ought to be found in the nursery ; and they may be given with perfect safety by the parent, either alone or in the combinations prescribed, provided always the directions laid down are attended to.

CASTOR OIL. — A mild aperient, prompt in its action and effective ; it is a medicine, therefore, particularly applicable to infants. It has this great advantage, too, over other purgatives ; that while they generally cause, after their action is passed off, a confined state of bowels, this leaves them relaxed.

The dose will depend upon the age and the known effects of aperient medicine upon the child ; some requiring more, others less. As a general rule, one to two tea-spoonfuls. To cover its unpleasant flavour it may be given in various ways ; — either mixed in warm milk ; or floating on peppermint, mint, or some other aromatic water ; or, if the stomach is unusually delicate, it may be made into the following emulsion, of which give a dessert-spoonful or more, according to the age, every hour until it operates. Take of

Castor oil, six drachms ;

The yolk of an egg ;

Dill water, two ounces ;

Loaf sugar, two drachms ; mix intimately.

For overcoming *habitual costiveness*, no medicine can be so much relied upon as castor oil. It may for this purpose be given daily for some weeks, gradually reducing the dose until only a few drops be taken; after which the bowels will generally continue to act without further artificial assistance.

During teething, when there is a *sluggish state of the bowels*, castor oil is a very useful remedy. I am in the habit, however, in this case, of prescribing it in combination with magnesia in a form which I owe to Dr. Eberle, and which is so certain and mild in its operation, while it is really pleasant to the taste, that I find children take it with little or no reluctance. The following is the form, of which give one or two tea-spoonfuls for a dose, and repeat it if necessary. Take of

Castor oil, one ounce;
 Calcined magnesia, two drachms;
 Loaf sugar, three drachms;
 Oil of anise, two drops; mix intimately.

MANNA.—This also may be given with impunity to the youngest infant; it is sweet to the taste, and mild in its operation. *The dose* is from one to three drachms. It may be given in a little warm milk; or, if it cause flatulence in this form, in some aromatic water, as a dessert-spoonful of carraway seed or dill water. For children above two years, it must always be given with some other aperient; thus it may be

combined with castor oil by the medium of muci-
lage or the yolk of an egg; in fact, it might be
substituted for the white sugar in the previous
prescription for castor oil.

MAGNESIA AND RHUBARB.—*Magnesia*, be-
sides being a laxative, allays irritability of the
stomach; it is consequently useful during den-
tition, at which period there is both much irrita-
bility and a prevailing acescency of the stomach.
The dose is from five grains to ten for an infant,
increasing the quantity to fifteen grains or twenty
to children of nine or ten years of age. When
taken alone the best vehicle is hot milk, which
greatly quickens its aperient operation. And
whenever the bowels are distended with wind,
the pure magnesia is preferable to the carbonate.
It is well to mention here, that when the infant
throws up the nurse's milk it is generally curdled;
a fact which leads the inexperienced mother to
infer that the child is suffering from acidity; and
to counteract the supposed evil magnesia is given
again and again. This is a useless and pernicious
practice, for curdling or coagulation of the milk
always takes place in the stomach, and is pro-
duced by the gastric juice, and is so far from
being a morbid process, that milk cannot be pro-
perly digested without it.

Rhubarb, it should always be recollected, has
an astringent as well as purgative property, ac-

according to the extent of the dose in which it is administered; the former of which never opposes or interferes with the energy of the latter, since it only takes effect when the substance is administered in small doses, or, if given in larger ones, not until it has ceased to operate as a cathartic. This latter circumstance renders it particularly eligible in mild cases of diarrhoea, as it evacuates the offending matter before it operates as an astringent upon the bowels.

As a purgative it operates mildly, and may be given to the youngest infant; if from two to twelve months old, from three to six grains; for children above that age, the dose may range from ten grains to twenty. Its operation, however, is much quickened by the addition of magnesia; both of which are more effective when thus united than when given separately. The following form, in a costive and flatulent state of the bowels, will be found useful: a tea-spoonful or more may be given every three or four hours until the desired effect is obtained: — Take of

Powdered rhubarb, half a drachm;
 Magnesia, two scruples;
 Compound spirits of ammonia, twenty drops;
 Dill water, two ounces;
 Simple syrup, two drachms.

PURGATIVE BISCUITS. — For years, in some families, aperient medicine, when occasionally required, has been exhibited in this form. There

can be no objection to this, if it lessen the child's *misery* in physic taking ; but these biscuits must be carefully made and carefully used. The Montpellier Hospital has the following formula, which, as its purgative quality is *jalap*, should not be given to very young children ; it is extracted from the work of Drs. Maunsell and Evanson :—

“Take an ounce of flour, and an ounce of sugar, two eggs, and one drachm of powder of jalap ; let three biscuits be made, a quarter of one of which will contain five grains of jalap ; and may be taken once or twice a day, according to the effect.”

The following form for *castor-oil biscuits*, which have been used for many years in one or more families, may also be occasionally resorted to :—

“Take a quarter of a pound of flour, two ounces of moist sugar, a small quantity of mixed spice finely powdered, and with an ounce and a half of castor oil, make the whole into the consistency of pie-crust ; to which may be added a few currants. After rolling out the paste, divide into ten cakes, and bake over a quick oven. Each cake will contain rather more than a tea-spoonful of oil, and one or more may be given according to the age of the child. The same may be made into gingerbread nuts by adding proper proportions of treacle and ground ginger.”

THE LAVEMENT.—This is an excellent nursery remedy when the bowels are obstinately costive. It may then be employed as a substitute for medicine, a protracted and frequent use of which (even of the mildest aperients) is apt to injure the digestive functions, and to give rise to some

degree of intestinal irritation. Lavements, however, like aperient medicine, must not be resorted to for a long time together; for whilst the latter irritate, the former most certainly tend, after a long continued use, to debilitate the bowels, and thus render them less than ever disposed to act for themselves. They are an excellent *occasional* remedy.

The simplest form of an aperient enema is warm water; but barley-water, or thin gruel, or even milk and water, are to be preferred at all times, as they are of a more bland and less irritating nature. If it be desirable to increase the strength of the injection, castor oil may be added. The proportions of fluid which are necessary for the different stages of life, under ordinary circumstances, may be stated as follows:—An infant at its birth requires about one fluid ounce; a child between the age of one and five years, from three to four fluid ounces; and a youth of ten or fifteen, from six to eight fluid ounces.

The mode of administering an injection to an infant deserves particular attention, as injury might be caused by its being performed in a careless or unskilful manner. A gum elastic pipe should be always used instead of the hard ivory tube. Having smeared this over with lard, and placed the infant on its left side with its knees bent up, in the lap of the nurse, it is to be passed a couple of inches into the bowel, in a direction

not parallel to the axis of the body, but rather inclined to the left. The latter circumstance should never be neglected, for if not attended to, there will be difficulty in administering the injection. The fluid must then be propelled very gradually, or it will be instantly rejected. The whole being thrown up, the pipe is to be carefully and slowly withdrawn, and the child kept quietly reposing on its nurse's lap, and in the same posture for some little time.

THE APERIENT LINIMENT. — A liniment to be rubbed on the stomach is another resource in cases of habitual costiveness, and will frequently be attended with great success when repeated purgatives have been resisted.

Olive or castor oil may be used for this purpose; they must be warmed and rubbed over the abdomen night and morning, for five or ten minutes. Perhaps the best form of liniment that can be made use of is the following: —

Compound soap liniment, one ounce;
Compound tincture of aloes, half an ounce.

SECT. VI. — CALOMEL.

CALOMEL is one of the most useful medicines we possess; but though powerful for good, it is

by no means powerless for mischief, and pages might be written upon the evil effects which have resulted from its indiscriminate use in the nursery; medical men are daily and hourly witnessing this fact. It is particularly eligible in the diseases of children; but then it is quite impossible for unprofessional persons to judge when it may be appropriately exhibited. And it cannot be too generally known, that the effect of this medicine upon the evacuations is always to make them appear unnatural. From ignorance of this fact, calomel is often repeated again and again to relieve that very condition which it has itself produced, causing but too frequently a degree of irritation in the delicate lining membrane of the bowel, which it may be very difficult for a medical man to remove, and perhaps a source of misery to the child as long as it lives. Its frequent exhibition has also another evil attending it, for "the immoderate use of mercury in early infancy produces more, perhaps, than any other similar cause, that universal tendency to decay, which, in many instances, destroys almost every tooth at an early age."

In the diseases of childhood it is often administered by the mother or nurse with a degree of careless excess which ultimately, if not immediately, produces severe and irremediable injury. I have met with such cases; but Mr. Bell details a remarkable instance in point: "A child, about

three years of age, was brought to me, having a most extensive ulceration in the gum of the lower jaw, by which the alveolar process (that portion of the jaw which forms the sockets of the teeth) was partially denuded. The account given by the mother was, that the child had some time previously been the subject of measles, for which a chemist, whom she consulted, gave her *white powders*, one of which was ordered to be taken every *four hours*. It appears by the result, that this must have been calomel; for, after taking it for two or three days, profuse salivation was produced, with swollen tongue, inflamed gums, &c., followed by ulceration of the gum, lips, and cheek. On examining the denuded alveolar process, I found that a considerable necrosis (death of the bone) had taken place, including the whole anterior arch of the jaw from the first double tooth on the left side to the eye-tooth on the right. By degrees the dead portion of bone was raised, and became loose, when I found that the mischief was not confined to the alveolar process, but comprised the whole substance of the bone within the space just mentioned," &c. Surely the knowledge of such a case as this would induce every prudent mother to *exclude calomel from her list of domestic nursery medicines*.

SECT. VII. — OPIATES.

THIS class of medicines is often kept in the nursery, in the forms of laudanum, syrup of white poppies, paregoric elixir, Dover's powder, Dalby's carminative, and Godfrey's cordial. The object with which they are generally given, is to allay pain by producing sleep; or, perhaps, much more frequently to allay the crying of a fretful child. They are, therefore, remedies of great convenience to the nurse; and I am sorry to add that, so exhibited, they are but too often fatal to the little patient.

In the hands of a physician there is no medicine, the administration of which requires greater caution and judgment than opiates, both from the susceptibility of infants to their narcotic influence, and their varying capability of bearing it. The danger, therefore, with which their use is fraught in the hands of a nurse, should for ever exclude them from the list of nursery medicines.

It is calculated that *three-fourths* of all the deaths that take place from opium, occur in children under five years of age. The amount which will sometimes cause death is very small; a fact most important to remember, and of itself a powerful argument against its use in any form by unprofessional persons. Dr. Kelso met with an instance, where a child nine months old was killed in nine

hours by four drops of laudanum. A case is mentioned in a late number of the Medical Gazette, in which two drops killed an infant; and another is reported in the Lancet for February, 1842, of a child two days old, killed by a dose of a mixture containing only one drop and a half of laudanum, the child dying in fourteen hours.

Of syrup of poppies, which is nothing more than a sweetened decoction of poppy-heads, many cases of poisoning have occurred from its injudicious use. "There is great reason, however, to believe, that what is sold by many druggists for syrup of poppies, as a soothing medicine for children, is a mixture of tincture or infusion of opium with simple syrup; it is, therefore, a preparation of very variable strength. This will account for what appears to many persons inexplicable, namely, that an infant will be destroyed by a very small dose." In 1837-38, seven children (whose cases are on record) lost their lives from this medicine; in one of them a tea-spoonful and a half was given; stupor came on in half an hour, and the child died the following day. And in January, 1841, a child, six months old, is said to have died from the effects of less than half a tea-spoonful of this syrup, bought at a druggist's.

Paregoric elixir has been occasionally given with fatal effects. A child, between five and six years old, had some cough medicine prescribed for it at a chemist's, the principal ingredient of

which was paregoric, and it died, poisoned. Another authenticated case is reported, where a child of seven months old was killed by the exhibition of a tea-spoonful.

In reference to Dover's powder, Dr. Ramisch, of Prague, met with an instance of a child, four months old, which was nearly killed by the administration of one grain only; and in June, 1832, a case occurred, in which four grains were given to a child four years and a half old, which became comatose, and died in seven hours. Ten grains of this preparation contain one of solid opium.

Dalby's carminative, with the exception of Godfrey's cordial, is perhaps the most popular quack medicine of its class in use, and one of the most fatally destructive from the indiscriminate and careless manner in which it is employed. The late Dr. Clark, in his Commentaries, mentions a case which he saw, where forty drops of this preparation destroyed an infant.

Godfrey's cordial has been abundantly destructive. In 1837-38, twelve children were killed by it; in one of these cases, the infant was four months old, and half a tea-spoonful was the dose given: an inquest was held on the body. Dr. Merriman relates the following instructive cases:—"A woman living near Fitzroy Square, thinking her child not quite well, gave it a dose of Godfrey's cordial, which she purchased at a chemist's in the neighbourhood; in a very short time after

taking it, the child fell into convulsions, and soon died. In less than a month, a child of another woman in the same house was found to be ill with disordered bowels. The first woman, not at all suspecting that the Godfrey's cordial had produced the convulsions in her infant, persuaded her friend to give the same medicine to her child. A dose from the same bottle was given; and this child was likewise attacked almost immediately with convulsions, and also died."

Convulsions and epilepsy, without such fatal results as the foregoing, are not uncommon as the effect of a single dose of an opiate given unadvisedly; and by their continued and habitual use (and a lazy and unprincipled nurse, unknown to the parent, will very often resort to these medicines in some one or other form) a low, irritative, febrile state is produced, gradually followed by loss of flesh; the countenance becoming pallid, sallow, and sunken; the eyes red and swollen; the expression stupid and heavy, and the powers of the constitution, at last, completely undermined. Such an object is to be seen daily among the poorer classes — the miniature of a sickly aged person: death soon follows here.

But surely enough has been said to prevent the parent, directly or indirectly, allowing the unprofessional use of opiates to her children. Remember their great susceptibility to their narcotic

influence, — their different capability of bearing it,—and the facts which have been adduced to prove the fatal effects which so frequently follow their unguarded employment.

SECT. VIII. — LEECHES.

LEECHES should never be employed unless ordered by the medical attendant; and when used, never let the young child see them: it can be easily prevented; and, as the sight of them generally gives alarm, it should be avoided. When applied to the chest or bowels, for any inflammatory attack, expose as little of the surface of the body during the time the leeches are drawing, as possible, lest fresh cold should be given.

THE MODE OF APPLYING THEM. — First, wash the part and dry it thoroughly. Then the readiest mode of applying the leeches is to take off the lid of the chip box in which they are sent, placing the mouth of the box on the part to which they are to be applied. Keep it steadily there for ten minutes, and then lift up the edge, and you will generally find that the leeches have taken. Next separate their tails from the bottom of the box, and so remove it. If the leeches take well, at the expiration of twenty minutes or half an hour they will drop off, filled, having done their duty, with

the exception, perhaps, of a solitary one still adhering, but idle. . This should be at once separated, not by forcibly detaching it, but by means of a little salt put on its head. It is a great mistake to allow a single leech to remain on for an hour or more after the others have dropped off, doing nothing, while it wearies and exhausts the child. The leech-bites are now to be sponged with warm water, or a bread and water poultice applied, as may have been directed by the medical attendant. In children, however, a poultice is seldom ordered; and so having been sponged for ten minutes, a pledget of lint is to be placed over the part, and steady pressure made upon it, and kept up by the ends of the fingers for five or ten minutes, and subsequently by means of a bandage or otherwise — being always most careful not in any degree to disturb the lint. In general this quickly puts a stop to the bleeding.

THE MODE OF ARRESTING THE BLEEDING. —

It is sometimes difficult to put a stop to the bleeding from leech-bites; a matter of considerable importance in the case of a delicate infant. In order to prevent the serious consequences that sometimes happen from this source to children, the bleeding should always be stopped before the patient is left for the night. Again, it is always prudent to apply them only over some bone, so that pressure may be effectually applied. The

following measures may be resorted to for arresting the bleeding when necessary: —

1. Expose the surface of the part to the external air, so that a coagulum of blood may form at the orifice; this simple mode will frequently arrest it.

2. If this fail, make compression upon the part: this is one of the most effectual means of restraining hæmorrhage. It is to be effected by placing a small portion of scraped lint over each leech-bite, and pressing on them with the points of the fingers (previously greased with cold cream that they may not, when taken away, disturb the lint) for five or ten minutes.

3. If the compression fails in stopping the bleeding, or from the situation of the leech-bites it cannot be adopted, because there is no firm point of resistance upon which to make pressure, the part may be dusted with starch or gum arabic powder, or, if this is of no avail, the wound may be touched with lunar caustic.

If none of these measures are successful, the assistance of the medical attendant must be obtained; and if firm pressure be made upon the part, no serious loss of blood can ensue before his arrival.

Leeches should never be resorted to by a parent for any of the diseases of infancy, without medical direction.

SECT. IX. — BLISTERS.

A BLISTER should never be applied for any infantile disease, except when ordered by a medical man, as its injudicious use might greatly aggravate the complaint.

There are also *one or two precautions* in reference to *the mode of the application* of a blister, which it is always right for a parent to attend to. A blister should never be applied to any part where the skin is excoriated or broken; and from the great irritability of the skin of a child, it should never be allowed to remain on longer than from two to four hours. At the expiration of this time, the surface will usually become red and inflamed; and, if the blister is removed, and the part dressed with fresh spermaceti ointment spread on lint, or with a soft bread and water poultice, a full blister will soon be raised: the little patient is thus saved much suffering, and a very troublesome sore prevented. A piece of tissue or silver paper, previously moistened with almond oil, interposed between the blister and the skin, will answer the same purpose; the blister will act well, and the evils before alluded to will be prevented.

After a blister has been on two or three hours its edge should always be carefully raised, to ascertain the effect produced; and if the surface

be much inflamed, more particularly if little points of vesication (watery bladders) are present, it should be removed. If the medical attendant has not ordered the blister to be kept open, the little bladder or bladders are now to be slightly snipped with the points of a sharp pair of scissors, the fluid let out, and the part dressed with a piece of lint (previously spread with spermaceti ointment) the exact size of the blistered surface. But if it is intended to keep up a discharge from the part, the cuticle must first be removed to a greater or less extent, according to previous directions, and then dressed with the ointment ordered.

SECT. X. — POULTICES.

BREAD AND WATER POULTICE.— Although this is one of the commonest applications in use, it is rarely well made or properly applied. It thus becomes injurious rather than useful; adding to the inflammation or irritation of the part, instead of soothing and allaying it. Nothing, however, is more simple than the mode of its preparation. Cut slices of stale bread of sufficient quantity, scald out a basin, put the bread into it, pour upon it boiling water, cover it over, and let it remain for ten minutes; next stir the bread about in the water, or if necessary, chop it a little with the edge of the knife, and drain off the water

by holding the knife on the top of the basin, but do not press the bread, as is usually done; then take it out lightly, and spread it upon some soft linen so that it shall be in thickness half an inch, and of a size large enough to cover the whole of the inflamed part, and a little more. Apply it just warm enough to be borne, and cover it well with oiled silk. A poultice thus made will act as a local tepid bath to the inflamed part; and the oiled silk preventing evaporation, it will be found, when taken off, as moist as the first moment that it was put on.

LINSEED MEAL POULTICE. — This is seldom made properly; the late Mr. Abernethy thus described how it ought to be made:—"Scald your basin," he says, "by pouring a little hot water into it, then put a small quantity of finely-ground linseed meal into the basin, pour a little hot water on it, and stir it round briskly until you have well incorporated them; add a little more meal and a little more water, then stir it again. Do not let any lumps remain in the basin, but stir the poultice well, and do not be sparing of your trouble. If properly made, it is so well worked together that you might throw it up to the ceiling, and it would come down again without falling in pieces; it is, in fact, like a pancake. What you do next, is to take as much of it out of the basin as you may require, lay it on a piece of soft linen,

let it be about a quarter of an inch thick, and so wide that it may cover the whole of the inflamed part."

MUSTARD POULTICE. — This is an invaluable application in some of the diseases of infancy and childhood, and therefore frequently ordered. It is made as follows: — First mix two-thirds of mustard flour and one-third of wheaten flour, as much as you will require for your poultice. Then scald out a basin with boiling water, — into this put your mixture of mustard and wheaten flour, pour a little hot water on it, stir it round, and add water sufficient to make it the consistence of thick paste. Then spread on soft linen about a quarter of an inch thick, the size ordered, and apply next the skin. The time it is to be kept on will depend upon the individual sensibility of the skin of the child; but in general, from fifteen to twenty minutes will be found amply sufficient. This application must at all times be carefully watched; for if it remain on too long, ulceration and even death of the part might ensue; therefore directly the skin is found tolerably red, the poultice should be removed. After its removal, a soft piece of linen is to be put over the part, and if very painful it may be dressed with spermaceti ointment.

SECT. XI. — THE WARM BATH.

THE warm bath judiciously prescribed is one of the most valuable remedial agents we possess, and the means for promptly administering it should always be at hand; but although powerful for good, when misapplied, it is equally powerful for mischief. For instance, in active inflammatory affections, before the loss of blood, the use of the warm bath would greatly aggravate the disease; and yet, for an infant with active inflammation of the respiratory organs, it is continually resorted to. Again, nothing is more common than for a child, when attacked with convulsions, to be put immediately in the warm bath; and, generally speaking, it is extremely beneficial in this class of disease; but it is sometimes no less prejudicial, when applied without due examination of the peculiarities of individual cases. For in plethoric and gross children, the local abstraction of blood from the head, and the complete unloading of the alimentary canal, are often necessary to render such a measure beneficial, or even free from danger. In convulsions, however, and particularly when arising from teething, a parent may, without hesitation, at any time immerse the *feet* of the

infant in water as warm as can be borne, at the same time that cloths wet with cold water are applied to the head and temples.

As a preventive, where there is a tendency to disease, the warm bath may be employed without scruple, and will be found most serviceable. Its value in this point of view is very great, and it is to be regretted that it is not sufficiently appreciated and used. For example, a severe cold has been taken, and inflammation of the air-tubes is threatened: only put the child into a warm bath, and, with the common domestic remedies, a very serious attack may be warded off. Again, in the commencement of a diarrhoea, a warm bath, and discontinuing the cause of the attack, will alone suffice to cure; and, moreover, in the protracted diarrhoea attendant upon teething, where, after various remedies have been tried in vain, the child has lost flesh and strength to an apparently hopeless degree, recovery has been brought about by the simple use of the warm bath.

In the treatment of scrofulous children, warm and tepid bathing is of great value. In such cases, a course of warm sea bathing, with active friction over the whole surface after each bath, will at once relieve that abdominal fulness which is generally present, improve the functions of the skin, and give tone and vigour to the whole system. Towards the termination of such a course

of baths, their temperature must be gradually reduced till they become tepid (85° to 92°).

The opinion that warm baths generally relax is erroneous: they are, no doubt, debilitating when used by persons of a weak and relaxed constitution, or when continued too long; but, on the contrary, they invariably give tone when employed in the cases to which they are properly applicable.

There are certain *rules for the use of the warm bath*, which should be invariably acted up to. Their neglect might be followed by serious consequences.

Temperature of the water.—When the warm bath is used as a measure of hygiene, as a general rule, any degree of temperature may be chosen between 92° and 98° , which appears to be most agreeable to the child; but on no account must 98° be exceeded. When ordered as a remedial measure, the temperature will of course be fixed by the medical attendant.

The same degree of temperature must be kept up during the whole period of immersion. For this purpose the thermometer must be kept in the bath, and additions of warm water made as the temperature is found to decrease. These additions of warm water, however, must be regulated by the indications of the thermometer, and not by the feelings of the child.

Period of remaining in the bath. — This must depend upon circumstances. As a measure of hygiene, it must be varied according to the age of the child. For the first four or five weeks, the infant should not be kept in beyond three or four minutes; and the duration must afterwards be gradually prolonged as the child advances in age, until it extends to a quarter of an hour, — a period which may be allowed after it has attained the age of four years.

When the bath is employed as a remedial agent, the time of immersion must be prolonged; this will be determined by the medical adviser. Speaking generally, a quarter of an hour may be said to be the shortest period, an hour the longest, and half an hour the medium.

When in the bath, care must be taken that the child's body is immersed up to the shoulders or neck, otherwise that part of the body which is out of the bath (the shoulders, arms, and chest), being exposed to the cooler temperature of the air, will be chilled.

When the infant or child is taken out of the bath, the general surface, especially the feet, must be carefully rubbed dry with towels previously warmed; and when one of the objects of the bath is to excite much perspiration, the child should be immediately wrapped in flannel and put to bed. When, however, the object is not to excite per-

spiration, the child may be dressed in his ordinary clothing, but should not be allowed to expose himself to the open air for at least an hour.

Time of using the bath. — When resorted to for sudden illness, the bath must of course be employed at any time needed. When used for any complaint of long standing, or as a measure of hygiene, as a general rule, it should be taken between breakfast and dinner, about two hours after the former, or an hour and a half before the latter. This implies that an infant should never be put into the bath after having been freely nourished at the breast. Neither should it ever be used when the child is in a state of free perspiration from exercise, or on awaking from sleep.

FOOT BATH. — A partial warm bath, such as the foot bath, is one of the safest and most frequently employed in the nursery. It is of much service in warding off many complaints. If a child get the feet wet, plunging them into warm water will often prevent any ill consequences; and even when the first chill and slight shiverings which usher in disease have been complained of, the disorder may sometimes be cut short by the use of a foot bath, continued till free perspiration occurs.

It is frequently ordered during teething, and in affections of the head. In these cases the inten-

tion is not merely to produce a gentle and general perspiration, but it is more particularly used to draw the blood from the head and body to the feet. The temperature of the water should be raised as high as can be borne, and it must be kept up by the occasional addition of fresh hot water. The vessel employed should be deep enough to permit the water to reach the knees, and a blanket must be thrown around the little patient and the bath. After the child has remained in from ten minutes to a quarter of an hour, the feet and legs must be rubbed perfectly dry, woollen stockings drawn on, and the child put into a warm bed.

A mustard foot bath is made by the addition of a table spoonful of mustard flour to every gallon of water. In convulsions excited by difficult teething, this bath is most useful, and may always be resorted to without fear by the mother. Its good effects will be much enhanced if, at the same time, a piece of flannel wet with cold water is applied over the head and temples, or cold water may be sprinkled on the face.

SECT. XII. — TEETHING.

THE infant at birth has no teeth visible; the mouth is toothless. It possesses, however, hidden in the jaw, the rudiments of two sets; the first of

these which make their appearance are called the temporary or milk teeth; the second, the permanent or adult teeth; and these come up as the former fall out, and so gradually replace them.

The coming of the first set (and of these only we have to speak here) is popularly called teething, and it is a natural process, but it is too frequently rendered a painful and difficult one by errors in the management of the regimen and health of the infant previous to the coming of the teeth, and during the process itself.

Thus, chiefly in consequence of injudicious management, it is made the most critical period of childhood. Not that I believe the extent of mortality fairly traceable to it is by any means so great as has been stated; for it is rated as high as one sixth of all the children who undergo it. Still, no one doubts that first dentition is frequently a period of great danger to the infant. It therefore becomes a very important question to an anxious and affectionate mother, how the dangers and difficulties of teething can in any degree be diminished, or, if possible, altogether prevented. A few hints upon this subject may be useful.

The manner in which the first set of teeth appear. — The first set of teeth, or milk-teeth as they are called, are twenty in number; they usually appear in pairs, and those of the lower jaw generally precede the corresponding ones of the upper. The first of the milk teeth is generally

cut about the sixth or seventh month, and the last of the set at various periods from the twentieth to the thirtieth months. Thus the whole period occupied by the first dentition may be estimated at from a year and half to two years. The process varies, however, in different individuals, both as to its whole duration, and as to the periods and order in which the teeth make their appearance. It is unnecessary, however, to add more upon this point.

1. *Management of the infant when teething is without difficulty.*—In the child of a healthy constitution which has been properly, that is, naturally, fed upon the milk of its mother alone, the symptoms attending teething will be of the mildest kind, and the management of the infant most simple and easy.

Symptoms.—The symptoms of natural dentition, then, are—an increased flow of saliva, with swelling and heat of the gums, and occasionally flushing of the cheeks. The child frequently thrusts its fingers, or anything within its grasp, into its mouth. Its thirst is increased, and it takes the breast more frequently, though, from the tender state of the gums, for shorter periods than usual. It is fretful and restless, and sudden fits of crying and occasional starting from sleep, with a slight tendency to vomiting and even looseness of the bowels, are not uncommon. Many of

these symptoms often precede the appearance of the tooth by several weeks, and indicate that what is called "breeding the teeth" is going on. In such cases the symptoms disappear in a few days, to recur again when the tooth approaches the surface of the gum.

Treatment. — The management of the infant in this case is very simple, and seldom calls for the interference of the medical attendant. The child ought to be much in the open air, and well exercised; the bowels kept freely open with castor oil; the cold sponging employed daily; and the surface of the body rubbed dry with as rough a flannel as the delicate skin of the child will bear, friction being very useful. The breast should be given, often, but not long at a time; the thirst will thus be allayed, the gums kept moist and relaxed, and their irritation soothed, without the stomach being overloaded. The mother must carefully attend, at this time, to her own health and diet, and avoid all stimulant food or drinks.

From the moment dentition begins, pressure on the gums seems to be agreeable to the child, by numbing the sensibility and dulling the pain. For this purpose coral is usually employed, or a piece of orris-root, or scraped liquorice-root; a flat ivory ring, however, is far safer and better, for there is no danger of its being thrust into the eyes or nose. Gentle friction of the gums, by the finger of the nurse, is pleasing to the infant; and,

as it seems to have some effect in allaying irritation, may be frequently resorted to. In France, and in this country also, it is very much the practice to dip the liquorice-root and other substances into honey, powdered sugar-candy, &c. ; and in Germany, a small bag, containing a mixture of sugar and spices, is given to the infant to suck, whenever it is fretful and uneasy during teething. The constant use, however, of sweet and stimulating ingredients must do injury to the stomach, and renders their employment very objectionable.

2. *The management of the infant in difficult teething.* — In the child which has been partly or altogether brought up by hand, or who is of a feeble and delicate constitution, or imbued with any hereditary taint, the process of dentition will be attended with more or less difficulty, and not unfrequently with danger.

Symptoms. — The symptoms of difficult dentition are of a much more aggravated description than those which attend the former case ; and it is right that a mother should, to a certain extent, be acquainted with their character, that she may early request that medical aid, which, if judiciously applied, will mitigate, and generally quickly remove them.

Difficult dentition will be attended with painful inflammation and swelling of the gum, which is hotter, of a deeper red than natural, and intolerant

of the slightest pressure. There is often great determination of blood to the head, which a mother may recognise by the cheeks being red, hot, and swollen; the eyes red, irritable, and watery; and the saliva running from the mouth profusely. The fever is great, and the thirst extreme. The child is at one time restless and irritable, and at another heavy and oppressed: the sleep will be broken, and the infant will frequently awake suddenly and in alarm from its short slumbers. Such are the chief symptoms of difficult teething, and which will be present to a greater or less degree.

Treatment. — As most of the foregoing symptoms are induced by the painful tension of the gum, it would seem that the most rational mode of attempting their relief is by freely lancing the swollen part. Great prejudices, however, exist in the minds of some mothers against this operation. They think it gives great pain, and if the tooth is not very near, causes it to come through the gum, subsequently, with greater difficulty. With regard to the first objection, the lancet is carried through the gum so quickly that this is hardly possible; and the fact that the infant will often smile in your face after it is done, although previously crying from pain, is sufficient corroborative evidence that it is not a very painful operation. In reference to the second, that the scar which ensues opposes, by its hardness, the subsequent progress of the tooth, it is quite groundless; for cicatrices,

like all other new-formed parts, are much more easily absorbed than the original structure. Of the practical utility and perfect safety of this operation, we have ample proof in its daily performance with impunity, and in the instant relief which it often affords to all the symptoms.

Mere scarifying the gums is sometimes all that is required, and will afford great relief. This operation, therefore, should not be opposed by the mother. She, at the same time, should be acquainted with its precise object, lest the speedy return of the symptoms, and the non-appearance of the expected tooth, might tend to bring the operation of lancing the gums into disrepute.

The parental management of the infant, then, and by which much of the pain and difficulty of teething may be removed or alleviated, consists in attending to the following directions:—

First, to the state of the mouth.—To this it is an important part of the mother's duty to pay especial attention; and, by so doing, she will save her child much suffering. The condition of the mouth should be carefully inspected from time to time; and should a swollen gum be discovered, it should immediately be attended to, not waiting till constitutional symptoms appear before she employs proper aid for her child. For this purpose the mother should make herself familiar with the appearances of the gum under distension and inflammation; a matter of no difficulty, accompanied,

as this condition usually is, by a profuse secretion of saliva, heat of mouth, and at a time when the age of the child justifies the supposition that it is about to cut its first tooth, or, if it have some teeth, that others are about to appear.

Secondly, to the food.— If a child is teething with difficulty, it should always have its quantity of nourishment diminished. If it is being fed, as well as nursed at the breast, at this time, the former should be immediately withheld: if it is being fed alone, the only kind of food that should be allowed is milk and water. These cases are much aggravated by the not uncommon habit of parents giving the infant food whenever it cries from the irritation attending upon the process; and thus a slightly difficult dentition is converted into serious disease.

Thirdly, to the state of the bowels.— These must be carefully watched, that they may not become confined; it being necessary that they should be gently relaxed at this time. If a slight diarrhoea is present, it must not be checked; if it pass beyond this, however, medicine must be had recourse to, and great benefit will also arise from putting the child into a warm *hip-bath*, and warmly clothing the body, but keeping the head cool.

Fourthly, to the head.— The infant's head should be washed with cold water night and morning, and no other covering than that which

nature has provided should be put upon it when within doors or asleep; and on no occasion should warm felt or velvet hats be worn during mild or warm weather, straw or white hats being much lighter and cooler. The child should be much in the open air.

The sponging of the infant's body daily, either with cold or tepid water, must depend upon the season of the year and constitution of the child, as well as upon other circumstances. Sponging the *head* with cold water night and morning is almost invariably attended with great benefit, and may be resorted to in every case without fear; and now and then the use of the warm hip-bath for several days together will be ordered by the physician, which, by acting upon the skin, diminishes the determination of blood to the head, and thus forms an important source of relief.

Fifthly, of convulsions.—If they should occur, and they are not unfrequently excited by difficult teething, and then give great alarm to the parent, relief will be afforded by immersing the hips, legs, and feet of the infant in water as warm as can be borne, and at the same time applying over the head and temples a piece of flannel wet with cold water. I have also often cut the fit short by sprinkling cold water in the child's face while in the bath. The gums should always be looked to, and if they appear swollen and painful, at once

lanced. I have known the most formidable convulsions to cease immediately after this operation.

Sixthly, of the use of opiates. — It is the practice with some nurses to administer narcotics to quiet infants while teething. It is not only objectionable, but, from the uncertain effects of sedatives upon infants, a very dangerous practice; and they ought never to be given, except at the suggestion of a medical man.* It is far better, if the child is restless at night, to have it frequently taken out of its cot, and carried about in an airy room; for the cool air, and change of posture, will do much to allay the feverishness and restlessness of the child; and if sleeplessness should still continue, sponge its little face and hands, and refreshing sleep will often follow.

From these few hints, it must have been seen how much the sufferings from teething may be mitigated by judicious management. — That, if the parent is able to support her infant upon the breast alone, teething is comparatively an easy process, and unattended with danger; the mother thus reaping a delightful reward for all the anxieties and privations nursing necessarily involves. — That the child brought up partially, or entirely by hand, will always pass through

* See page 346.

dentition with more or less of pain and difficulty ; but that even here, if the diet has been properly regulated, much less suffering and inconvenience will arise than when less attention has been paid to it. — And, lastly, that when dentition is difficult, how highly important it is to call in proper aid at an early period, and to carry out fully the directions of the medical attendant, allowing no foolish prejudices to interfere with his prescriptions and management.

If I stood in need of any argument to impress upon the mind of a parent the importance of attending to the last injunction, I would simply state, that its neglect is but too frequently the cause of disease of the brain, terminating in death, or a state of idiocy far worse than death, of which I know more than one living instance.

It may be as well to add, that *eruptions* about the ears, head, face, and various parts of the body, very frequently appear during the process of the first teething. If they are slight, they should be left alone, being rather useful than otherwise ; if they are troublesome, medical aid must be sought. The same remark applies to enlargements of the glands of the neck, which frequently appear at this time. It is only necessary to make one further remark, that in some infants a rash always precedes the cutting a tooth. Sometimes it appears in the form of hard elevated pimples as large as peas ; in

other instances in the form of red patches, of the size of a shilling, upon the arms, shoulders, and back of the neck. They are always harmless, require no particular attention, and prevent, I doubt not, more serious complaints.

CHAPTER X.

OF VACCINATION.

AT the close of the eighteenth century small-pox was still the source of general terror to mankind. Notwithstanding every effort employed to mitigate its violence, and confine the spread of this dreadful pestilence, the mortality from it in London alone, at this time, averaged 2000 annually (one-tenth of the total mortality), and throughout England was estimated at 45,000. There was, in fact, a general impression upon the minds of men, that every individual born must expect at some period of his life to become the subject of this loathsome, and too often fatal, disorder.

Such was the state of things in 1798, when Dr. Jenner announced the discovery of vaccination. It appears that, very early in life, whilst an apprentice to Mr. Ludlow, an eminent surgeon practising at Sudbury near Bristol, his attention was frequently called to a popular notion current in the dairy districts of Gloucestershire, that occasionally cows were subject to a disorder called

cow-pox*, which was sometimes communicated to the milkers, and protected them from the small-pox. One such occasion is particularly recorded. A young country woman came into the shop to seek advice. The subject of small-pox was casually alluded to: she immediately remarked, "I cannot take that disease, for I have had cow-pox." This observation struck Jenner. The fact appeared to him an extraordinary one; and it would seem as if he then, in some measure, foresaw the vast consequences which might result from it. It was not, however, until 1775, being then established in practice in Gloucestershire, that he gave much attention to the subject. The observation of the uninstructed peasant girl was then more than ever forcibly pressed upon his mind; for among the country people whom he was called upon to inoculate for the small-pox, some resisted every effort to give them the disease, and these he found were milkers who had undergone cow-pox. In a happy hour the idea struck him that it might be practicable to propagate this disease (cow-pox) by inoculation from the cow first, and subsequently from one human being to another, and thus give to all mankind this protection from small-pox.

* It appears on the nipples of cows, in the form of irregular pustules. The animals become indisposed, and the secretion of milk is much lessened. From these pustules, infection is sooner or later communicated to the hands of the milkers. Inflamed spots appear about the joints and extremities of the fingers; and fever and constitutional disturbance are excited in a greater or less degree.

This brilliant thought seems first to have occurred in the year 1780. It was not, however, until long after this date that Jenner first attempted, by actual experiment, to prove the truth of his speculations. At length, however, on the 14th May, 1796, he made the first vaccine inoculation. The subject was a boy named James Phipps, and the matter was taken from a sore on the hand of a dairymaid, one Sarah Nelmes, who had been infected casually in the course of her occupation. The boy passed through this disorder in a manner perfectly satisfactory, and was tested with varicellous matter on the 1st of July following; but the small-pox inoculation, though carefully conducted, took no effect. This was repeated after some months, "but no sensible effect produced on the constitution." Additional experiments were made during the next two years; and the new trials having being equally successful with the first, Jenner published to the world the discovery of vaccine inoculation in June 1798.

Although the experience of the past fifty years ought to convince us, I think, that Jenner's idea that vaccination would banish small-pox from the earth is vain and illusory; still the same experience has proved this discovery to be one of the greatest blessings ever conferred on mankind, possessing the power of protecting the system of some individuals from the infectious influence of small-pox altogether, and in all cases of the actual

occurrence of the disease, so modifying it as to render it for the most part devoid of danger. Time, however, has shown another thing; that the application of this remedy requires care and judgment, and that for want of these it frequently fails to confer the inestimable benefits it possesses. This is, doubtless, the case oftentimes in those remote districts, where medical aid can only with difficulty be obtained, and where, therefore, charitable but unprofessional individuals are in the habit of gratuitously vaccinating the children of the poor. For their information, therefore, and with a desire to remedy the evil referred to, in however slight degree, and also with the hope of exciting a more careful attention of the mother to this subject, the following hints are given * : —

The age and condition of the child. — The most favourable time for vaccinating an infant is be-

* The following extract from the Report of the National Vaccine Establishment (dated 1839), points out the causes of failure, and at the same time shews that there is no real ground for any loss of confidence in the protective power of cow-pox. It is signed by four of the medical officers. "We are convinced that the indiscriminate vaccination which has been practised in this country by ignorant and unqualified persons, with but little or no regard to the condition of body of the person to be vaccinated, to the selection of the vaccine lymph, or to the progress and character of the vesicle to be formed, are to be regarded amongst the main causes of the occasional failure of vaccination. We have the opportunity of bearing our most ample testimony to the continuance of the efficiency of the original vaccine lymph introduced by Dr. Jenner, through nearly a million of subjects successively, of whom many thousands have been exposed with entire impunity to small-pox in its most malignant form."

tween the age of six weeks and four months ; a period, that is, prior to the irritation of teething, and also subsequent to the extreme irritability of first infancy. Should, however, small-pox be very prevalent, and in the near neighbourhood, rather than expose the infant to its contagious influence, it should be vaccinated at once. There will be but little risk in this measure, even if resorted to immediately after its birth.

The child, when operated upon, should be as far as possible in perfect health. If disease be present in the system, if it be the period of dentition, if the bowels are at all disordered, or if there be any eruption on the surface of the body, vaccination should be postponed, unless from the pressure of some extreme necessity. And again, if it be positively necessary from circumstances to vaccinate during the presence of a chronic eruption, there is no objection to this, for it is not unlikely that it will be benefited by the introduction of the vaccine disease ; but on some future occasion the vaccination ought to be repeated, in order to test the efficiency of the former trial.

The vaccine matter to be employed.— It must be what is called active virus, or it will be of no use, that is to say, it must be taken from a vesicle before a certain date after vaccination, or it will be unfit for reproduction. Now lymph may be taken with every prospect of success from the fifth

to the eighth day, after this it is not to be depended upon; the eighth is the day almost universally fixed upon for this purpose. Having selected a vesicle, three or four slight punctures are to be made in its elevated margin with the point of a lancet, from which minute drops of transparent lymph will soon be found to exude. With the lancet so charged the infant is to be vaccinated immediately, or before many hours have elapsed, otherwise the lymph will become inert, and rust the instrument.

If the lymph is to be collected and preserved for future use, great care is required, being a fluid of extreme delicacy, very liable to spontaneous decomposition and other changes which impair its efficacy. The following are the modes generally adopted. The lymph may be received upon a piece of a glass about an inch square, allowed to dry, and then covered with a similar piece of glass, and folded up in tinfoil, or goldbeater's skin. Or it may be preserved on ivory points, shaped like the tooth of a comb. These must be dipped twice or thrice in the fluid of the vesicle, allowed to dry between each charging, and then wrapped up in goldbeater's skin. Again, it may be kept fluid in small capillary tubes, having a bulb at one end. The virus is to be allowed to ascend from the punctured vesicle, the air in the bulb having been rarified by the application of heat, and the tube is to be hermetically sealed immediately on its being

charged. The dry crust or scab of a mature cow-pox is also made use of, and it has been ascertained is the most certain mode of transmitting the cow-pox to hot countries. It must be kept dry in a well-stopped phial.

The health and constitution of the child from whence the lymph is taken should always be carefully regarded. A child in perfect health, with no cutaneous affection or vicious constitutional taint, is the only subject from whom it ought ever to be propagated. Great carefulness upon this point is demanded, and incalculable injury has too often resulted from its unwarrantable neglect. Obstinate and alarming cutaneous disorders have from time to time been communicated to children by vaccinating with virus from an unhealthy infant.

The mode of vaccinating. — The best place for the operation is about one-third down the upper arm, and rather to its outer side. The instrument to be employed is the lancet. It should have a broad shoulder, a fine point; it should be clean and perfectly sharp. Failure often arises from a peculiar toughness of the child's skin; which a blunt lancet penetrates with difficulty. The lymph is consequently thrown back upon the shoulder of the instrument, and none of it enters the wound.

The arm of the infant is to be firmly grasped by the left hand of the operator, and the skin at

that part of the arm where the punctures are to be made is to be kept perfectly tense with the fore-finger and thumb. The lancet being held in a slanting position between the thumb and fore-finger of the right hand, its point (previously charged with fresh lymph) is to be introduced just under the skin; it is to be kept in the wound for a few seconds, and then wiped repeatedly over the puncture. Three or four punctures (and not fewer) are thus to be made in the same arm, and at such distances from each other as not to become confluent in their advance to maturation. And it is desirable to vaccinate in one arm only, and that the left, that the nurse in handling the child may have less difficulty in preserving the vesicles from injury. The places will bleed more or less, and freely if the child is full of blood; if, however, the lymph be good, and has once come in contact with the absorbing surface below the upper skin, whether there be much or little blood is of no moment. If only one puncture should succeed, its vesicle must be allowed to run its full course, and therefore not opened for a supply of virus.

Some persons prefer to vaccinate by scratch, rather than by puncture. Here a blunt but clean lancet is to be employed. This is to be charged with virus (as directed above) and its edge drawn again and again, but very lightly, over the skin, so as to make five or six scratches, each about the

eighth of an inch in length. The lancet is then to be rubbed over these till the lymph is wiped off its point. Blood ought not to be drawn, the scratches should merely become red, like the accidental scratch from the point of a pin. Nothing further is necessary, except exposing the arm for a few minutes to the air, that the small quantity of fluid that will exude from the operation may become dry.

If the lymph to be used has been preserved between glass, a minute drop of cold water is to be taken on the point of the lancet, and the dry lymph is to be rubbed down with this until dissolved, and then used exactly as fresh virus.

If ivory points are employed, and I consider them more convenient and more successful usually than the glasses, the puncture in the arm must be made with a sharp and clean lancet in the manner already directed, and into it a point be inserted, allowed to remain a minute or two, and when withdrawn, wiped once or twice over the puncture. The vaccine lymph must thus be inserted in three or four punctures.

If the capillary tube is used, the matter must be expelled from the broken tube by heat, as by putting the bulb into the mouth, and then employed in the same manner as if it were fresh.

The crusts or scabs are prepared for use by rubbing them to powder, and moistening them with a little cold water to the consistence of thin

mucilage. It is advisable with the vaccine thus obtained to make more than the usual number of punctures.

The appearance and progress of a genuine vaccine vesicle. — If the vaccination has been successfully performed, and the infant be healthy, the puncture on the second day may be felt elevated; on the third and fourth a small red pimple is to be seen, and if examined with a magnifying glass, surrounded by a slight efflorescence; on the fifth day a distinct vesicle becomes apparent to the eye, circular in form, having an elevated edge, and depressed centre; on the eighth day it appears distended with a clear lymph, is either pearl coloured, or slightly yellow, and is at its greatest perfection.

On the evening of this day *an inflamed ring* begins to form around the base of the vesicle, which continues to increase during the two following days; it is circular in form, and its diameter extends from one to three inches. It is at its height on the tenth day, when there is considerable hardness and swelling of the subjacent parts; on the eleventh day it begins to fade, generally from the centre to the circumference, sometimes forming two or three concentric rings of a bluish tinge.

After the tenth day the vesicle itself begins to decline, the centre first turns brown, and the whole is gradually converted into a hard round scab of a dark mahogany colour. About the twenty-first

day, this crust falls off, leaving a permanent circular cicatrix, somewhat depressed, and marked with six or eight minute pits.

Such is the course of a true vaccine vesicle, and if there be a shadow of a doubt that the vaccination is defective in any one of the above points, especially if the inflamed ring do not appear, perform the operation again.

Always suffer one or two of the vesicles, at least, to pursue their entire course untouched; if there be more than two, then lymph may be taken from them, if required, for vaccinating others.

Constitutional symptoms and management. — Some children pass through the disorder without the slightest indication of constitutional disturbance, which is not to be looked upon as by any means essential to the success of the vaccine process. If the constitutional symptoms manifest themselves, it will be about the seventh or eighth day; the infant will be restless and hot, and the bowels more or less disordered. It is not an uncommon circumstance to find about the tenth day a papular eruption of a lichenous character, showing itself on the extremities of the child, sometimes extending to the trunk of the body. It continues for three or four days occasionally, until after the vaccine scab has fallen off. This eruption is chiefly met with in children of full habits, in whom

numerous vesicles have been raised, which discharge freely.

Internal treatment is rarely required during vaccination, except now and then a mild aperient, such as a tea spoonful of castor oil; febrile symptoms, however, sometimes manifest themselves, when it becomes necessary. The chief thing to be attended to in the management is to protect the vesicles, as they enlarge, from injury, particularly from the sixth or seventh day. If, unfortunately, from friction or other cause, the inflammation and swelling around the pustule should become severe, cold water, or a weak solution of Goulard's extract, or a bread and water poultice, must be applied.

Constitutional inaptitude. — Every effort to communicate the vaccine disease will, now and then, fail; the child will not take the vaccination. When a case of this kind is met with, after a fair number of trials with fresh and active virus, the little patient should be left for a few months, in the hope that some change may take place in the system, and then another trial be instituted.

Experience has long proved that the predisposition to receive cow-pox is not equally great in all persons, nor at all times; and that in some individuals there exists through life an insusceptibility to the vaccine disease. The child of a weak and unhealthy constitution will not unfrequently be

found indisposed to take the vaccination, but in this case the inaptitude is temporary ; whilst on the other hand, when this indisposition is met with in a healthy and robust condition of body, it will most probably last through life. Happily, however, experience has further shown that in most of these instances the individual is equally insusceptible of the small-pox disease.

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